FOREIGN TUBE TYPES

SUPPLEMENTARY TEST DATA for

MODELS 752 & 752A

TUBE TESTERS

NOTATIONS

- NOTE 1: symbol "X" For dual triodes make normal leakage test first, then repeat leakage test for 2nd section with button S8 pressed down and held. Proceed with 1st section Gm test with S8 released. For 2nd section test on all dual tubes, press down and hold button S8 together with button listed in PRESS column.
- NOTE 2: symbol "+" Verify shorts by setting filament switch to OFF position.
- NOTE 3: symbol "★" Approximate starting voltage for voltage regulator tubes.
- NOTE 4: symbol "†" Read 0-100 milliamperes with button S9 pressed down.
- NOTE 5: symbol "VR" For voltage regulator tubes, the figure in the MIN MUT COND (minimum mutual conductance) column indicates the nominal operating voltage.
- NOTE 6: symbol "#" Set BIAS at 100, press and hold down button indicated in the PRESS column while rotating BIAS dial counterclockwise until tube strikes.
- NOTE 7: For TUBE TESTER Models 752, the Universal Adapter CA-5, 1050-164, is available. This Adapter provides tube test sockets for Compactrons, Novars, 5 and 7-pin Nuvistors, and the new 10-pin tubes, including Decals. Test data for these tubes is supplied in supplementary form with the Adapter. The CA-4, 1050-135 Adapter (discontinued) can still be used but requires the use of the SA-11, 1050-177 Adapter for testing decal types.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
3505	35.0	4590-6870	0		×10	S4	300	
38A3	35.0	4500-9030	0	55	SH	53	800	
40KG6	35.0	4510-0392	90		X10	S 5	475	CAP = P. USE ADAPTER SA-8, 1050-168.
42EC4	50.0	4500-7010	0	66	SH	\$3	350	CONNECT CAP TO PIN 1 OF OCTAL SOCKET. USE ADAPTER SA-8, 1050-168.
45A5	50.0	1860-2570	10		X10	55	600	USE ADAPTER SA-5, 1050-129.
4585	50.0	4520-7930	16		X10	55	475	
508M8	50.0	4530-6720	26		X4	S 5	625	PENTODE SECTION.
50BM8	50.0	4510-9080	0		X2	\$5	775	TRIODE SECTION.
50E5	50.0	7250-0480	. 32		X10	S 5	450	CAP = P.
50JY6	50.0	2750-0483	55		X10	\$5	350	CAP = P.
85A1	OFF	0000-2080			VR	59	85V	120V. REGULATION = 3 V. FROM 1 TO 8 MA. NOTES 3 AND 4.
85A2	OFF	0000-1020			VR	59	85V	125V- REGULATION = 3V- FROM 1 TO 10 MA- NOTES 3 AND 4-
9001	OFF	0000-5070			VR	59	900	110V. REGULATION =14 V. FROM 1 TO 40 MA. NOTES 3 AND 4.
95A1	OFF	0000-5010			VR	\$9	95V	CONNECT 470K OHM RESISTOR BETWEEN PINS 1 AND 4 ANY SOCKET. 110V. REGULATION =5V
108C1	OFF	0000-5020	gan ear eah	==	VR	59	108V	FROM 2 TO 10 MA. NOTES 3 AND 4. 115V. REGULATION = 2V. FROM 5 TO 30 MA. NOTES 3 AND 4.
15082	OFF	0000-1020			VR	59	150V	160V. REGULATION = 5V. FROM 5 TO 15 MA.
150C2	OFF	0000-5020			VR	S9	150V	NOTES 3 AND 4. 155V. REGULATION = 2 V. FROM 5 TO 30 MA. NOTES 3 AND 4.
5894	12.6	1762-0340	35		X4	\$5	625	RIGHT CAP=P. USE ADAPTER SA-6, 1050-107.
5894 5911	12.6	1726-0340 3540-2100	35 28		X4 X1	S5 S5	625	LEFT CAP=P.
					13.			
5913	1.1	3540-1200	25 25		X1 X10	S5 S5-	250 390	DUAL TRIODE. NOTE 1.
5920 6042	25.0	4356-2170 7841-5263	23		X4	\$5	400	DUAL TRIODE. NOTE 1.
6057	12.6	4572-6183	14		X4	S5	200	DUAL TRIODE. NOTE 1.
6059	6.3	4520-7839	20		X2	\$5	375	
1010	12 4	4572-6183	14		X4	\$5	625	DUAL TRIODE. NOTE 1.
6060 6061	12.6	4520-7839	18		X4	\$5	575	DONE INTOCCO NOTE 10
6063	6.3	4300-6170	0	18	SH	53	650	DUAL DIODE. NOTE 1.
6064	6.3	4310-5726	11		X10	S 5	300	
6065	6.3	4310-5726	15		X4	\$5	225	
6066	6.3	4310-7020	15		X4	\$5	175	TRIODE SECTION.
6066	6.3	4300-6520	0	30	SH	S1	400	DUAL DIODE. NOTE 1.
6067	12.6	4572-6183	25		X2	S5	675	DUAL TRIODE. NOTE 1.
6118	6.3	7200-3081	15		X4	S 5	175	TRIODE SECTION. CAP = G.
6118	6.3	7200-5483	15	30	SH	S1	400	DUAL DIODE. NOTE 1.
6132	6.3	4520-7839	0		X10	\$5	600	The Allendard Control of the Control
6227		4520-7839	15		X10	55	425	
6252	12.6	7162-0340	29		X2	S5	775	TETRODE NO. 1. RIGHT CAP = P.
6252	12.6	7126-0340	29		X2	S5	775	TETRODE NO. 2. LEFT CAP = P. USE ADAPTER SA-6. 1050-107.
6267	6.3	4590-6138	11		X4	. \$5	300	USE ADAPTER SA-DY 1050 1070
6360	12.6	4531-8720	13		X4	\$5	500	TETRODE NO. 1.
6360	12.6	4513-6720	13		X4	S5	500	TETRODE NO. 2.
6374	6.3	4500-0030	0	41	SH	\$3	650	CAP = P.
6375	1.1	4510-8000	26		X4	S5	425	
6516	6.3	4310-5720	26		X4	S 5		
6686	6.3	4520-7839	10		X10	S 5	450	
6687	6.3	4370-5621	0		X2		375	AMPL. SECTION. HOLD DOWN SI & PRESS S5.
6687	6.3	4310-5627	0		X2	S5	375 600	OSC. SECTION.
6688	6.3	4520-7918 4520-6139	15		X10 X10	S5 S5	425	
6689	6.3	4720-0139						
6761	6.3	4520-1730	31		X10	\$5	475	440.0
6883	12.6		12		X10	54	425	CAP=P.
6907	12.6	7162-0340	33		X4 X4	S5 S5	375 375	RIGHT CAP=P. USE ADAPTER SA-6, 1050-107. LEFT CAP=P. USE ADAPTER SA-6, 1050-107.
6907	12.6	7126-0340	33		X4 X10	S5	675	DUAL TRIODE. NOTE 1.
6922	0.5	1512-0105						
				4- 7		*		

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
6927 7062 7119 7308 7316	6.3 12.6 12.6 6.3 12.6	4356-2170 4572-6183 5472-9163 4572-6183 5472-6183	17 15 17 21 25		X10 X10 X20 X10 X2	\$5 \$5 \$5 \$5 \$5 \$5	325 400 500 675 675	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE NO. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
7320 7534 7643 7643 7645	6.3 6.3 6.3 12.6	4520-7930 7250-0480 4520-6371 4590-1086 4531-8720	14 55 12 26 12		X10 X4 X4 X4 X10	\$5 \$5 \$5 \$5 \$5	475 600 625 675 425	PENTODE SECTION. TRIODE SECTION. TETRODE NO. 1.
7645 7693 7694 7699 7699	12.6 6.3 6.3 12.6 12.6	4513-6720 4310-5627 4310-5627 4531-8720 4513-6720	12 10 10 12 12		X10 X4 X2 X10 X10	\$5 \$5 \$5 \$5 \$5	425 425 775 425 425	TETRODE NO. 2. TETRODE NO. 1. TETRODE NO. 2.
7721 7737 7751 7788 7854	6.3 6.3 6.3 12.6	4520-7918 4520-7918 2750-3480 4520-7938 1762-0340	11 8 58 12 35		X10 X10 X10 X20 X4	\$5 \$5 \$5 \$5 \$5	625 600 300 350 625	RIGHT CAP=P. USE ADAPTER SA-6, 1050-107.
7854 8223 8233 8255 8278	12.6 6.3 6.3 6.3	1726-0340 4572-6183 4580-1390 4590-8020 4530-9860	35 29 23 14 33		X4 X20 X10 X20 X10	\$5 \$5 \$5 \$5 \$5	625 4400 800 475 650	LEFT CAP = P. DUAL TRIUDE. NOTE 1. USE ADAPTER SA-8, 1050-168.
8298 8348 8348 8416 8457	6.3 1.4 1.4 12.6 12.6	7250-0318 4513-6700 4531-8700 4572-6183 4531-8720	12 28 28 21 13		X10 X4 X4 X10 X4	\$4 \$5 \$5 \$5 \$5	425 350 350 675 500	CAP=P. TETRODE NO. 1. TETRODE NO. 2. DUAL TRIODE. NOTE 1. TETRODE NO. 1
8457 8458	12.6	4513-6720 4531-8720	13		X 4 X 4	S 5 S 5	500 500	TETRODE NO. 2 TETRODE NO. I. USE ADAPTER SA-4,1050-144 OR CA-4, 1050-135. NOTE 7.
8458 8509 8509	12.6 2.0 2.0	4513-6720 1462-0300 1462-0300	13 35 35		X4 X4 X4	S 5 S 5 S 5	500 625 625	MODEL 7524. NOADAPTER REQUIRED. TETRODE NO. 2. IGHT CAP=P.USE ADAPTER SA-6, 1050-107. LEFT CAP=P.
8552 8556 8562 8595 8595	12.6 6.3 6.3 12.6 12.6	7250-0318 4510-8020 4590-8020 4531-8720 4513-5720	12 14 14 12 12		X10 X20 X20 X10 X10	S4 S5 S5 S5	425 775 475 475 475	CAP=P. TETRODE NO. 1 TETRODE NO. 2
8608 8637 8637 8737 8737	6.3 12.6 12.6 12.6 12.6	4580-0392 5910-6720 5930-8720 1762-0340 1726-0340	13 37 37 35 35		X20 X10 X10 X4 X4	S5 S5 S5 S5	750 300 300 625 625	CAP=P. USE HICKOK ADAPTER SA-8, 1050-168 TETRODE NO. 1. USE ADAPTER SA-8,1050-168 TETRODE NO. 2. RIGHT CAP=P. USE ADAPTER SA-6, 1050-107. LEFT CAP =P.
18042. 18043 18045 18046 18048	20.0 6.3 20.0 17.0 20.0	5420-6139 4520-7839	10 15 10 10		X10 X10 X10 X10 X4	\$5 \$5 \$5 \$5 \$5	550 425 500 500 700	
A2900 AX9903 AX9903 AX9910 AX9910		1762-0340 1726-0340 7162-0340	14 35 35 29 29		X4 X4 X4 X2 X2	\$5 \$5 \$5 \$5 \$5 \$5	625 625 625 775 775	DUAL TRIODE. NOTE 1. RIGHT CAP=P. USE ADAPTER SA-6, 1050-107. LEFT CAP=P. USE ADAPTER SA-6, 1050-107. TETRODE NO. 1. RIGHT CAP = P. TETRODE NO. 2. LEFT CAP = P. USE ADAPTER SA-6, 1050-107.
AZ41 AZ41 B36 B65 B109	4.3 4.3 12.6 6.3 25.0	7841-5263	0 0 23 23 14	0 0	SH SH X4 X4 X4	\$3 \$3 \$5 \$5 \$5	400 400 400 400 625	PLATE NO. 1. USE ADAPTER SA-5, 1050-129. PLATE NO. 2. USE ADAPTER SA-5, 1050-129. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
8152 8309 8319 8329 8339	12.6 12.6 7.5 12.6 12.6	4572-6183 5472-6183 4562-9371 5472-6183 5472-6183	14 14 24 25 14		X4 X4 X10 X2 X4	S5 S5 S5 S5 S5	625 625 375 675 200	DUAL TRIDDE. NOTE 1.
B719 BPM04 C3G C3M CCA	6.3 6.3 6.3 20.0 6.3	5472-6183 4310-5620 1860-3452 1860-2473 4572-6183	14 18 12 20 21		X4 X4 X10 X4 X10	\$5 \$5 \$5 \$5 \$5	625 575 550 700 675	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
D3A D63 D77 D152 DA90	6.3 6.3 6.3 1.4	4520-7918 7200-5384 3400-7215 3400-7215 7100-2030	11 0 0 0 0	73 78 78 78	X10 SH SH SH SH	\$5 \$1 \$1 \$1 \$1	625 400 400 400 400	DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1.
DAF91 DAF91 DAF92 DAF92 DC70	1.4 1.4 1.4 1.4	1760-5400 1700-3000 1760-2300 1700-4000 4510-8000	13 0 13 0 26	15	X1 SH X1 SH X4	\$5 \$1 \$5 \$1 \$5	400 400 400 400 425	PENTODE SECTION. DIODE SECTION. PENTODE SECTION. DIODE SECTION.
DC90 DCC90 DCC90 DCF60	1.4 3.0 3.0 1.1 1.1	7150-2000 1750-6000 1730-2000 4730-1205 4750-6003	16 35 35 12 27		X1 X2 X2 X1 X1	\$5 \$5 \$5 \$5 \$5	675 625 625 300 175	TRIODE NO. 1. TRIODE NO. 2. PENTODE SECTION. NOTE 2. TRIODE SECTION. NOTE 2.
DD6 DDR7 DF33 DF60 DF61	6.3 6.3 1.4 1.1	4300-7215 4310-5720 7200-3400 3540-1200 3500-2041	0 26 11 8 0	78 0	SH X4 X2 X1 SH	\$1 \$5 \$5 \$5 \$5 \$5	400 400 225 525 300	DUAL DIODE. NOTE 1. CAP = G. MAKE NO GAS TEST.
DF62 DF67 DF91 DF92 DF96	1.1 0.6 1.4 1.4	3540-1200 3540-2100 1760-2300 7160-2300 7160-2300	14 28 0 19 25		X4 X1 X2 X2 X2	S4 S5 S4 S5 S5	225 60 225 325 175	
DF904 DH63 DH63 DH77	1.4 6.3 6.3 6.3	1760-2300 7200-3081 7200-5483 4310-7020 4300-6520	14 15 15 15 0	30	X2 X4 SH X4 SH	\$5 \$5 \$1 \$5 \$1	275 175 400 175 400	TRIODE SECTION. CAP = G. DUAL DIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1.
DK 32	1.4	7250-3400	0		Х2		275	PENTODE SECTION. CAP=G.
DK 32 DK 91 CL 33 DL 35	1.4 1.4 2.5 1.4	7250-6430 1740-3062 7250-3400 7250-3400	24 10 0 18		X1 X2 X2 X2 X2	\$5 \$4 	250 425 625 475	HOLD DOWN S1 AND PRESS S5 OSC. SECTION NOTE 2. HOLD DOWN S1 AND PRESS S5. HOLD DOWN S1 AND PRESS S5.
DL36 DL63 DL63 DL66 DL67	1.4 6.3 6.3 1.4 1.1	7250-3400 2700-3080 2700-5480 5340-1200 3540-1200	0 19 19 32 25	64	X2 X2 SH X1 X1	S5 S1 S5	625 625 400 400 250	HOLD DOWN S1 AND PRESS S5. TRIDDE SECTION. CAP = G. DUAL DIODE. NOTE 1. HOLD DOWN S1 AND PRESS S6.
DL91 DL92 DL93 DL94 DL95	1.4 2.5 2.5 3.0 3.0	1730-2400 7130-2400 1740-2300 7160-2300 7130-2400	23 23 11 0 0		X2 X2 X2 X4 X4	S4 S4 	475 475 600 300 300	HOLD DOWN SI AND PRESS S5. HOLD DOWN SI AND PRESS S5. HOLD DOWN SI AND PRESS S5.
DL96 DL98 DM70	2.5 2.5 1.4	1760-2300 5430-7100 5410-8000	23 50		X2 X2 X2	S4 S5 S6	425 525	ADJUST BIAS TO VARY BAR LENGTH. DO NOT
DM71	1.4	5410-8000			X2	\$6		ADJUST BIAS TO VARY BAR LENGTH. DO NOT ' ADJUST BIAS BELOW 30.
DP61	6.3	4310-5672	17		X2,	\$5	725	

TUBE TYPE	FIL.	SELECTORS	RIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
DX263 DX263 DX296 DX296 DY30	2.0 2.0 12.6 12.6 1.1	1462-0300 1462-0300 5910-6720 5930-8720 7200-0000	35 35 37 37 0	80	X4 X4 X10 X10 SH	\$5 \$5 \$5 \$5 \$5 \$6	625 625 300 300 400	RIGHT CAP=P. USE ADAPTER SA-6, 1050-107 LEFT CAP=P TETRUDE NO.1. USF ADAPTER SA-8, 1050-168 TETRODE NO. 2. CAP = P.
DY51	1.4		0	88	SH SH	\$6 \$6	400	CONNECT FIL. LEADS TO OCTAL SUCKET PINS 2 AND 7. SINGLE LEAD = P. CAP = P.
DY86 DY87 DY802	1.4	4200-0000 4200-0000 1200-0000	0	85 85 86	SH SH SH	\$6 \$6 \$6	400 400 400	CAP = P. CAP = P. CAP=P.
E55L E80CC E80CF E80CF E80F	6.3 12.6 6.3 6.3	5490-1086	23 17 12 26 15		X10 X4 X4 X4 X4 X2	\$5 \$5 \$5 \$5 \$5	800 425 625 675 575	USE ADAPTER SA-8, 1050-168. DUAL TRIODE. NOTE 1. PENTODE SECTION. TRIODE SECTION.
E80L E81CC E81L E82CC E83CC	6.3 12.6 6.3 12.6 12.6	5472-6183	15 14 10 25 14		X10 X4 X10 X2 X4	\$5 \$5 \$5 \$5 \$5 \$5	425 625 450 675 200	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
E83F E84L E86C E88C E88CC	6.3 6.3 6.3 6.3	5420-7930 5420-1030	15 14 14 14 21		X10 X10 X10 X20 X10	\$5 \$5 \$5 \$5 \$5	425 475 880 475 675	DUAL TRIODE. NOTE 1.
E90CC E90F E91AA E91H E91H	6.3 6.3 6.3 6.3	4310-5627 4300-7215 4370-5621	25 10 0 0	78	X10 X4 SH X2 X2	\$5 \$5 \$1 \$5	390 425 400 375 375	DUAL TRIODE. NOTE 1. DUAL DIGDE. NOTE 1. AMPL. SECTION. HOLD DOWN S1 & PRESS S5. OSC. SECTION.
E91N E92CC E95F E99F E130L	6.3 6.3 6.3 6.3	4365-1270 4310-5620 4310-5627	15 10 10 55	94	SH X10 X4 X2 X4	\$6 \$5 \$5 \$5 \$5	650 375 675 775 600	STRIKES AT ABOUT 27. NOTE 6. DUAL TRIODE. NOTE 1.
E180CC E180F E182CC E182F E186F	12.6 6.3 12.6 6.3 6.3	5420-7918	15 8 17 13 8		X10 X10 X20 X20 X10	S5 S5 S5 S5	400 600 500 300 600	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
E188CC E235L E283CC E283CC E288CC	6.3 6.3 6.3 6.3	4590-8017 4520-3067	21 58 9 9		X10 X10 X2 X2 X2	\$5 \$5 \$5 \$5 \$5	675 300 600 600 4400	DUAL TRIODE. NOTE 1. TRIODE NO. 1. TRIODE NO. 2. DUAL TRIODE. NOTE 1.
E810F E2134 EA76 EAA91 EAA901	6.3 6.3 6.3 6.3	4310-5720 1400-2030	12 15 0 0	81 78 78	X20 X10 SH SH SH	\$5 \$5 \$1 \$1 \$1	350 375 400 400 400	DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1.
EAA901S EABC80 EABC80 EABC80 EAF42	6.3 6.3 6.3 6.3	4300-7215 5480-9070 5400-6070 5400-2137 8160-2574	0 15 0 0 25	78 35 78	SH X4 SH SH X2	\$1 \$5 \$1 \$1 \$5	400 175 400 400 375	DUAL DIODE. NOTE 1. TRIODE SECTION. DIODE NO. 1. DUAL DIODE. NOTE 1. PENT. SECT. USE ADAPTER SA-5, 1050-129.
EAF42 EAM86 EAM86 EAM86 EB41	6.3 6.3 6.3 6.3	4580-7693 4500-2030	0 45 78 0 0	61 20 78	SH X20 X20 SH SH	\$1 \$4 \$4 \$1 \$1	400 400 400	DIODE SECT. USE ADAPTER SA-5, 1050-129. SOLID BAR. SPLIT BAR. DIODE. DUAL DIODE. USE ADAPTER SA-5, 1050-129. NOTE 1.
E891	6.3	4300-7215	0	78	SH	S1	400	DUAL DIODE. NOTE 1.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
	6.3	8710-5020	16		X10	\$5	625	
C84		2700-3080	19		X2	55	625	TRIODE SECTION. CAP = G.
BC33	6.3	2700-5480	19	64	SH	Si	400	DUAL DIODE. NOTE 1.
BC33 BC41	6.3	8130-2070	9		X1	55	800	TRIODE SECT. USE ADAPTER SA-5, 1050-129.
BC41	6.3	8100-6570	0	27	SH	S1	400	DUAL DIODE. USE ADAPTER SA-5, 1050-129.
	6.3	5420-1030	9		×1	S 5	800	NOTE 1. TRIODE SECTION.
BC81 BC81	6.3	5400-8630	0	27	SH	Si	400	DUAL DIODE. NOTE 1.
8090	6.3	4310-7020	15		X4	55	175	TRIODE SECTION.
BC90	6.3	4300-6520	. 0	30	SH	51	400	DUAL DIODE. NOTE 1.
BC91	6.3	4310-7020	14		X4	55	200	TRIODE SECTION.
BC91	6.3	4300-6520	0	30	SH	S1	400	DUAL DIODE. NOTE 1.
BF32	6.3	7200-3681	22		X2	\$5	300	PENTODE SECTION. CAP = G.
BF32	6.3	7200-5481	22	32	SH	51	400	DUAL DIODE. NOTE 1.
BF80	6.3	5420-6139	8		X4		350	PENTODE SECTION. HOLD DOWN SI & PRESS SE
BF80	6.3	5400-7839	0	30	SH	S1	400	DUAL DIODE. NOTE 1.
BF83	6.3	5420-1639	0	44	SH	S1	650	PENTODE SECTION. DUAL DIODE. NOTE 1.
BF83	6.3	5400-8730	0	43	SH X4	S1 S5	400	PENTODE SECTION.
BF89	6.3	5420-6139 5400-8730	14	60	SH	S1	400	DUAL DIODE. NOTE 1.
BF89								
C71 C80	6.3	3610-8057 5410-9030	10		X10 X20	S4 S5	350 375	
C81	6.3	5410-8030	28		X4	55	625	
C86	6.3	5420-1030	14		X10	\$5	880	
C88	6.3	5490-8020	14		X20	55	475	
:090	6.3	4360-1070	25		X 2	S 5	675	
C91	6.3	4310-7050	0		X10	\$5	525	
C92	6.3	4360-1070	14		X4	S5 .	625	
C94	6.3	4320-1050	16		X10	54	400	
C95	6.3	4320-5670	11		X10	S 5	650	
C97	6.3	4320-5016 4520-1030	13		X10 X10	S 5 S 5	800 875	
C806S C900	6.3	4310-5076	17		X10	\$5	475	
C8010	6.3	4510-8020	14		X20	55	775	
CC33	6.3	8741-5263	15		X4	55	400	DUAL TRIODE. NOTE 1.
CC 35	6.3	7841-5263	13		X4	\$5	250	DUAL TRIDDE. NOTE 1.
CC40	6.3	8163-5274	20		X4	55	450	DUAL TRIODE. USE ADAPTER SA-5,
								1050-129. NOTE 1.
CC81	12.6	5472-6183	14		X 4	S 5	625	DUAL TRIODE. NOTE 1.
CC82 CC83	12.6	5472-6183 5472-6183	25 14		X2 X4	S 5 S 5	675 200	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
		A			X10	55	375	DUAL TRIODE. NOTE 1.
CC84	6.3	5462-9371	24		X4	55	625	DUAL TRIODE. NOTE 1.
CC85 CC86	6.3	5472-6183	19	0	SH	Si	875	DUAL TRIODE. MAKE NO GAS TEST. NOTE 1.
CC88		5472-6183	20		X10	\$5	775	DUAL TRIODE. NOTE 1.
CC89	6.3	4562-9381	22		X10	\$5	550	DUAL TRIODE. NOTE 1.
CC91	6.3	4356-2170	25		X10	\$5	390	DUAL TRIODE. NOTE 1.
CC180	6.3	4572-6183	15		X10	S 5	400	DUAL TRIODE. NOTE 1.
CC186	12.6	5472-6183	25		X2	S 5	675	DUAL TRIODE. NOTE 1.
CC189	6.3	5472-6183	22		X10	S5	475	DUAL TRIODE NOTE 1.
CC 230	6.3	8741-5263	55		X4	54	625	DUAL TRIODE. NOTE 1.
CC801	12.6	4572-6183	14		X4	\$5	625	DUAL TRIODE NOTE 1.
CC8015	12.6	5472-6183	14 25		X4 X2	S 5 S 5	625 675	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
CC802	12.6	5472-6183	25		x2	55	675	DUAL TRIODE. NOTE 1.
CC802S CC803	12.6	5472-6183	14		X4	55	200	DUAL TRIODE. NOTE 1.
CC803S	12.6	5472-6183	14		X4	55	200	DUAL TRIODE. NOTE 1.
CC960	6.3	4356-2170	25		X10	S5	390	DUAL TRIODE. NOTE 1.
CC962	6.3	4365-1270	15		X10	55	375	DUAL TRIODE. NUTE 1.
CC2000	6.3	5680-7091	24		X20	\$5	450	TRIODE NO. 1. USE ADAPTER SA-11,
								1050-177. MODEL 752# USE SA-11 & CA-4. NOTE 7.
20000	4 2	5630-A021	24		X20	S5	450	TRIODE NO. 2.
CC2000	6.3	JOSO MUZI			1			1.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
ECF80	6.3	5420-6371	12		X 4	55	. 625	PENTODE SECTION.
ECF80	6.3	5490-1086	26		X 4	\$5	675	TRIODE SECTION.
ECF82 ECF82	6.3	5420-6370 5490-1080	12		X4 X10	S5 S5	475 525	PENTODE SECTION. TRIUDE SECTION.
ECF83	6.3	5490-6780	10		X2	54	470	PENTODE SECTION.
ECF83	6.3	5420-3010	32		X2	54	700	TRIODE SECTION.
ECF86	6.3	5420-8930	11.		X10	55	525	PENTODE SECTION.
ECF86	6.3	5460-7030	33		X10	55	375	TRIDDE SECTION.
ECF200	6.3	5630-7824	15		X10	55	375	PENTUDE SECTION. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4.
								NOTE 7.
ECF200	6.3	56A0-9010	14		X 4	S 5	750	TRIDDE SECTION.
ECF201	6.3	5630-7824	14		X10	\$5	375	PENTODE SECTION. USE ADAPTER SA-11. 1050-177. MODEL 752# USE SA-11 & CA-4.
				-				NOTE 7.
ECF201	6.3	56A0-9010	30		X10 X10	\$5 \$5	300 475	TRIODE SECTION.
ECF801 ECF801	6.3	5420-6710 5490-8030	. 10		X10	55	550	TRIODE SECTION.
ECF802	6.3	4520-6370	14		X4	\$5	775	PENTODE SECTION.
ECF802	6.3	4590-1080	13		X4	S 5	550	TRIODE SECTION.
ECF804	6.3	4520-6370	15		X10	\$5	450	PENTODE SECTION.
ECF804	6.3	4590-1080	17		X10	55	500	TRIODE SECTION.
ECF805 ECF805	6.3	4570-3280 4590-1080	12		X10 X10	\$5 \$5	450 375	PENTODE SECTION.
ECH35 ECH35	6.3	7200-3485	10		X2 X4	\$5 \$5	500	HEXODE SECTION. CAP = G. TRIODE SECTION.
ECH42	6.3	8160-2574	19		X2	\$5	400	HEXODE SECT. USE ADAPTER SA-5, 1050-129.
ECH42	6.3	8160-3076	27		X2	S5	475	TRIODE SECT. USE ADAPTER SA-5, 1050-129.
ECH81	6.3	5420-6137	15		X2	S 5	475	HEPTODE SECTION.
ECH81	6.3	5490-8032	20		X 4	S.5	475	TRIODE SECTION.
ECH83 ECH83	6.3	5470-1632 5490-8030	23		X1 X2	S1 S1	600 300	TRIODE SECTION. MAKE NO GAS TEST.
ECH84	6.3	5420-6731	12		X1	51	730	HEPTODE SECT. HOLD DOWN SI & PRESS S5.
ECH84	6.3	5490-8030	11		X4	54	400	TRIODE SECTION.
ECH200	6.3	5630-7412	15		.X1		700	HEPTODE SECT. HOLD DOWN S1 & PRESS S5. USE ADAPTER SA-11, 1050-177. MODEL 752#
								USE SA-11 & CA-4. NOTE 7.
ECH200 ECL80	6.3	5680-A090 5490-6837	23		X 4 X 4	S 5	650	TRIODE SECTION.
ECL80	6.3	5420-1030	21 - 25		X4 X2	S 5 S 5	500 425	PENTODE SECTION. TRIODE SECTION.
ECL82	6.3	5430-6720	26		X 4	\$5	625	PENTODE SECTION.
ECL82	6.3	5410-9080	0		x2 :	\$5	775	TRIODE SECTION.
ECL83	6.3	4590-6870	- 25		X10	S 5	300	PENTODE SECTION.
ECL83 ECL84	6.3	4520-1030 5480-6970	15		X1 X10	S5 S5	450 630	TRIODE SECTION.
ECL84		5410-2030	12		X4	\$5		TRIODE SECTION.
ECL85				. "5	W 2 /2			
ECL85	6.3	5490-6780 5420-1030	36 l		X10 X2	S 5 S 5	380 960	PENTODE SECTION. TRIODE SECTION.
ECL86	6.3	5480-6370	11		X10	\$5	500	PENTODE SECTION.
ECL86 ECLL800	6.3	5410-9020	10		X2	S 5	325	TRIODE SECTION.
ECLLBOO	6.3	4526-3970	15		X 4	S 5	775	PENTODE NO. 1.
ECLL800	6.3	4562-8970	15		X4	\$5	775	PENTODE NO. 2.
ECLL800 ED500	6.3	4526-1070 4500-8010	0	65	X1 SH	S5 S1	100 500	TRIODE SECTION. CAP = G. USE ADAPTER SA-8, 1050-168.
EF22	6.3	8160-2374	23		X04	\$5	275	CAP - 0. USE ADAPTER SAMBY 1000 100.
EF40	6.3	8150-2674	10		X2	\$5	600	USE ADAPTER SA-5, 1050-129.
EF41	6.3	8160-2570	21		X2	S 5	475	USE ADAPTER SA-5, 1050-129.
EF42 EF71	6.3	8160-2574	10		X4	S5	725	USE ADAPTER SA-5, 1050-129.
EF80	6.3	6310-5740 5420-7819	13		X4 X10	S 5 S 5	475	
EF85	6.3	5420-7819	17		X4	\$5	550	
EF86	6.3	5490-6138	11		×4	55	300	
EF89	6.3	5420-7839	12		X 4	S 5	475	
EF91	6.3	4310-5726	11		X10	S 5	300	
7 - 11				;	13			
						-1.	1 10	

TUBE TYPE	FIL.	SELECTORS	HIAS	SHUNT	MULT	PRESS-	MIN. MUT. COND	NOTATIONS
EF92 EF93	6.3	4310-5726 4310-5672	15		X4 X4	\$5 \$5	225 500	
EF94 EF95 EF96 EF97 EF98	6.3 6.3 6.3 6.3	4310-5672 4310-5620 4310-5620 4370-6523 4310-6527	10 10 10 0	73	X4 X4 X4 X1 SH	\$5 \$5 \$5 \$1 \$1	475 675 625 500 650	MAKE NO GAS TEST.
EF183 EF184 EF731 EF732 EF800	6.3 6.3 6.3 6.3	5420-7819 5420-7819 6310-5740 6310-5740 5420-7819	17 10 13 16 10		X4 X10 X4 X4 X10	S5 S5 S5 S5 S5	650 500 475 475 400	
EF804 EF804S EF805S EF806S EF861	6.3 6.3 6.3 6.3	5490-7831 5490-7831 5420-7819 4590-6138 5420-7918	11 11 17 11 8		X4 X4 X4 X4 X10	\$5 \$5 \$5 \$5 \$5 \$5	300 300 550 300 600	
EF905 EFL200	6.3	4310-5620 5680-A970	10 16		X4 X10	\$5 \$5	675 650	PENTUDE NO. 1. USE ADAPTER SA-11, 1050-177. MODEL 752# USE ADAPTER SA-4 &
EFL200 EH90 EH90	6.3 6.3 6.3	5610-4320 4310-5627 4370-5621	12 16 0		X10 X1 X1	\$5 \$5 \$5	450 300 775	CA-4. NOTE 7. PENTODE NO. 2. GRID NO. 1. GRID NO. 3.
EH900S	6.3	4370-5621	0		х2		475	AMPL. SECTION. HOLD DOWN S1 AND PRESS S5
EH900S EK90 EK90 EL33	6.3 6.3 6.3	4310-5627 4370-5621 4310-6027 7250-3480	0 0 20 13		X2 X2 X10 X10	\$5 \$5 \$5	475 250 400 400	OSC. SECTION AMPL. SECTION. HOLD DOWN S1 & PRESS S5. OSC. SECTION.
EL34 EL36 EL37 EL38 EL41	6.3 6.3 6.3 6.3	7250-3481 7250-0480 7250-3481 7250-0481 8160-2570	23 32 17 0		X10 X10 X10 X10 X10 X10	\$5 \$5 \$5 \$5 \$5	375 450 300 700 600	CAP = P. CAP = P. USE ADAPTER SA-5, 1050-129.
EL42 EL80 EL81 EL83 EL84	6.3 6.3 6.3 6.3	8160-2570 4520-7130 5420-0731 5420-7136 5420-7930	17 10 51 0 14		X4 X10 X10 X10 X10	\$5 \$5 \$5 \$5 \$5	500 600 275 550 475	USE ADAPTER SA-5, 1050-129. CAP = P.
EL85 EL86 EL90 EL91 EL95	6.3 6.3 6.3 6.3	5420-7938 5420-7930 4310-5620 4310-5720 3410-5620	17 16 18 26 10		X4 X10 X4 X4 X4	\$5 \$5 \$5 \$5 \$5	500 475 575 400 600	
EL180 EL360 EL500 EL503 EL505	12.6 6.3 6.3 6.3	4520-7813 7250-0480 4520-0780 4530-9860 4510-0392	0 32 73 33 90		X10 X10 X4 X10 X10	S5 S5 S5 S5 S5	500 450 400 650 475	CAP = P. CAP = P. USE ADAPTER SA-8, 1050-168. USE ADAPTER SA-8, 1050-168. CAP = P. USE ADAPTER SA-8, 1050-168.
EL508 EL509 EL803 EL821 EL822	6.3 6.3 6.3 6.3	4510-6370 4510-0392 5420-7136 5420-7839 5420-7839	40 90 0 0		X10 X10 X10 X10 X10	S5 S5 S5 S5	475 475 550 600 600	USE ADAPTER SA-8, 1050-168. CAP=P. USE HICKOK ADAPTER SA-8, 1050-168
ELL80 ELL80 EM34	6.3	5420-3170 5460-8970 7240-5080	14	100	X4 X4 SH	\$5 \$5 \$6	770 770	PENTODE NO. 1. PENTODE NO. 2. CONNECT A 1 MEGOHM RESISTOR FROM PLATE JACK TO PIN 3 OF LARGE 7 PIN SOCKET. CONNECT A SECOND 1 MEGOHM RESISTOR FROM PLATE JACK TO PIN 6 OF LARGE 7 PIN SOCKET. EYE ONE CLOSES AT BIAS OF ABOUT 35. EYE TWO CLOSES AT BIAS OF ABOUT 68. BIAS = VARY.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
EM80	6.3	5410-9020		100	SH	S6		CONNECT A 1 MEGOHM RESISTOR FROM PLATE JACK TO OCTAL TEST SOCKET PIN 7. VARY
EM81	6.3	5410-9020		100	SH	\$6		BIAS TO VARY BEAM ANGLE. CONNECT A 1 MEGOHM RESISTOR FROM PLATE JACK TO OCTAL TEST SOCKET PIN 7. VARY BIAS TO VARY BEAM ANGLE.
EM84 EM84	6.3	5410-6030 5410-6030	45 0		X20 X20	S 5 S 5		SOLID BAR. (SEE BELOW). SPLIT BAR. JUMPER NOVAL SOCKET PINS 789. CONNECT A 470K OHM, 1/2 WATT, 10% RESISTOR FROM THIS JUMPER TO PIN 6.
EM87 EM87	6.3	5410-6030 5410-6030	34		X20 X20	\$5 \$5		SOLID BAR. (SEE BELOW). SPLIT BAR. JUMPER NOVAL SOCKET PINS 789. CONNECT A 100K OHM, 1/2 WATT, 10% RESISTOR FROM THIS JUMPER TO PIN 6.
EMM801	6.3	4590-2031	45		X20	S 5		SOLID BAR. (SEE BELOW).
EMM801	6.3	4590-2031	20		X20	\$5		SPLIT BAR. CONNECT A 390K OHM, 1/2 WATT, 10% RESISTOR BETWEEN PINS 2 & 8 OF THE LOCTAL TEST SOCKET.
EMM801 EMM801	6.3		45 20		X20 X20	S5 S5		SOLID BAR. (SEE BELOW). SPLIT BAR. CONNECT A 390K OHM, 1/2 WATT, 10% RESISTOR BETWEEN PINS 2 & 6 OF THE LOCTAL TEST SOCKET.
EMM803 EMM803	6.3		40		X20 X20	\$5 \$5		LARGE SOLID BAR. (SEF. BELOW). SPLIT BAR. CONNECT A 470K OHM, 1/2 WATT, 10% RESISTOR BETWEEN PINS 6 & 9 OF THE NOVAL TEST SOCKET.
EMM803 EMM803	6.3	4520-6010 4520-6010	25		X20 X20	S 5 S 5		SMALL SOLID BAR. (SEE BELOW). NO BAR. CONNECT A 1 MEGOHM, 1/2 WATT, 10% RESISTOR BETWEEN PINS 6 AND 7 OF THE
EN91 EQ80 EY80	6.3 6.3 6.3	4310-6025 5470-1639 5400-9030	29	93 55	SH X2 SH	S6 S5 S3	650 -300 650	STRIKES AT ABOUT 26. NOTE 6.
EY81	6.3	5400-0090	0	50	SH		650	CAP = P. SHORT UN 1-2-3-4. HOLD DOWN S7 AND PRESS S3.
EY82 EY84 EY86 EY87	6.3 6.3 6.3	5400-9030 5400-0030 4200-0000 4200-0000	0 0 0	50 41 85 85	SH SH SH SH	\$3 \$3 \$6 \$6	525 650 400 400	CAP = P. CAP = P. CAP = P.
EY88	6.3	5400-9000	0	56	SH	S3	800	CONNECT CAP TO EXT. SELF BIAS RES. JACKS MODEL 752A# CAP=K
EY91 EY500	6.3	4300-1020 4500-7010	0	18 80	SH SH	S3 S3	650 350	CONNECT CAP TO PIN 1 OF THE OCTAL SOCKET USE ADAPTER SA-8, 1050-168.
EZ 2 EZ 35	6.3	7200-5381 7200-5381	0	20 20	SH	\$3 \$3	650 650	DUAL DIODE. NOTE 1 DUAL DIODE. NOTE 1.
EZ 40	6.3	8100-6270	0	0	SH	\$3	650	DUAL DIODE. USE ADAPTER SA-5, 1050-129. NOTE 1.
EZ80 EZ81 EZ90 GY501	6.3 6.3 3.0	5400-7130 5400-7130 4300-6170 8100-0000	0 0 0	0 42 18 90	SH SH SH	\$3 \$3 \$3 \$6	650 650 650 400	DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. CAP = P. USE ADAPTER SA-8, 1050-168.
GZ30 GZ32 GZ33 GZ34 H63	5.0 5.0 5.0 5.0 6.3	8200-6400 8200-6400 8200-6400 8200-6400 7200-4081	0 0 0 0 12	57 55 62 68	SH SH SH SH X4	\$3 \$3 \$3 \$3 \$5	650 650 800 650 225	DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. CAP = G.
H-1112	2.0	3140-0280	10		X10		450	CAP = P. HOLD DOWN S1 & PRESS S5. USE ADAPTER SA-3, 1050-127. FOR MODEL 752A# USE SELECTORS AC40-0280.
1208 HAA91	6.3	3140-2080	15		X10	S4	600	SAME AS ABOVE - NO ADAPTER REQUIRED. USE ADAPTER SA-3, 1050-127 OR CA-4, 1050 -135. NOTE 7.
HABC80 HABC80	12.6 20.0 20.0	4300-7215 5480-9070 5400-6070	0 15 0	78 35	SH X4 SH	\$1 \$5 \$1	400 175 400	DUAL DIODE. NOTE 1. TRIODE SECTION. DIODE NO. 1.
								SEE NEXT PAGE FOR CONJINUATION

7115 71105	5	CCLCCTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
TUBE TYPE HABC80 HBC90 HBC90 HBC91 HBC91	20.0 12.6 12.6 12.6 12.6	5400-2137 4310-7020 4300-6520 4310-7025 4300-6527	0 15 0 14	79 30 30	SH X4 SH X4 SH	\$1 \$5 \$1 \$5 \$1 \$5	400 175 400 200 400	DUAL DIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1.
HCC85 HCH81 HCH81 HCL82 HCL82	17.0 12.6 12.6 35.0 35.0	5472-6183 5420-6137 5490-8032 4530-6720 4510-9080	14 15 20 26 0		X10 X2 X4 X4 X2	\$5 \$5 \$5 \$5 \$5	375 475 475 625 775	DUAL TRIODE. NOTE 1. HEPTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
HD14 HD14 HD30 HD93 HD94	1.4 1.4 2.5 1.1 6.3	7200-3000 7200-5000 5430-7100 2100-0000 7250-0480	0 0 50 0 28	0 80	X1 SH X2 SH X10	S5 S1 S5 S6 S4	175 400 525 400 350	TRIODE SECTION. CAP = G. DIODE SECTION. CAP = P. CAP = P.
HD96 HF61 HF62 HF93 HF94	25.0 6.3 6.3 12.6 12.6	7250-0480 8160-2570 8160-2574 4310-5672 4310-5672	28 21 10 0 10		X10 X2 X4 X4 X4	\$4 \$5 \$5 \$5 \$5	350 475 725 500 475	CAP = P. USE ADAPTER SA-5, 1050-129. USE ADAPTER SA-5, 1050-129.
HK90 HK90 HL90 HL92 HL94	12.6 12.6 20.0 50.0 35.0	4370-5621 4310-6027 4310-5620 4320-7610 9450-7610	0 20 18 13 16		X2 X10 X4 X10 X10	S5 S5 S5	250 400 575 475 475	AMPL. SECTION. HOLD DOWN \$1 & PRESS \$5. OSC. SECTION. HOLD DOWN \$1 AND PRESS \$5. BEFORE PLACING TUBE IN SOCKET JUMPER A 33 OHM, 2 WATT RESISTOR BETWEEN PINS 3&9 ON THE 9-PIN MIN. SOCKET COUNTING COUNTER CLOCKWISE.
HMO4 HMO4 HP6 HY90 HZ90	6.3 6.3 6.3 35.0 12.6	4370-5621 4310-6027 4310-5726 4300-5070 4300-6170	0 20 11 0	50 18	X2 X10 X10 SH SH	S5 S5 S3 S3	250 400 300 650 650	AMPL. SECTION. HOLD DOWN S1 & PRESS S5. OSCILLATOR SECTION. DUAL DIODE. NOTE 1.
KT61 KT66 KT88 KTZ63 L63	6.3 6.3 6.3 6.3	7250-3480 7250-3481 7250-3481 7200-3485 7350-3080	10 17 13 21 23		X10 X10 X20 X2 X4	\$5 \$5 \$5 \$5 \$5	450 300 225 375 400	CAP = G.
L77 LC900 LCF80 LCF80 LCF200	6.3 2.5 6.3 6.3	4310-5076 4520-6371	25 17 12 26 15		X2 X10 X4 X4 X4 X10	\$5 \$5 \$5 \$5 \$5	675 475 625 675 375	PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4. NOTE 7.
LCF200 LCF201	6.3	56A0-9010 5630-7824 56A0-9010	14 14		X4 X10	\$5 \$5	750 375 300	TRIODE SECTION. PENTODE SECTION. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4. NOTE 7. TRIODE SECTION.
LCF201 LCF801 LCF801	6.3 5.0 5.0	5420-6710 5490-8030	10 29		X10 X10	\$5 \$5	475 550	PENTODE SECTION. TRIODE SECTION.
LCF802 LCF802 LCH200	6.3 5.0	4520-6370 4590-1080 5630-7412	14 13 15		X4 X4 X1	\$5 \$5 	775 550 700	PENTODE SECTION. TRIODE SECTION. HEPTODE SECTION. HOLD DOWN SI≠8 PRESS S5 USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4. NOTE 7.
LCH200 LCL80	5.0 4.3	5680-A090 5420-1030	23 25		X4 X2	S 5 S 5	650 425	TRIODE SECTION. TRIODE SECTION.
LCL80 LCL82 LCL82 LCL84 LCL84	4.3 10.0 10.0 10.0	4530-6720	21 26 0 10 12		X4 X4 X2 X10 X4	\$5 \$5 \$5 \$5 \$5 \$5	500 625 775 625 625	PENTODE SECTION PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
LCL85 LCL85 LFL200	10.0	4520-1030 4590-6780 5680-A970	23 36 16		X2 X10 X10	S5 S5 S5	950 375 650	1050-177. MODEL 752# USE SA-11 & CA-4.
LFL200 LL86	10.0	5610-4320 4520-7930	12 16		X10 X10	S5 S5	450 475	NOTE 7. PENTODE NO. 2.
LL500 LL505 LL521 LN119 LN119	20.0 25.0 20.0 50.0	4520-0780 4510-0392 4580-0392 5430-6720 5410-9080	73 90 30 26 0		X4 X10 X10 X4 X2	S5 S5 S4 S5 S5	400 475 750 625 775	CAP = P. USE ADAPTER SA-8, 1050-168. CAP = P. USE ADAPTER SA-8, 1050-168. CAP = P. USE ADAPTER SA-8, 1050-168. PENTODE SECTION. TRIODE SECTION.
LN152 LN152 LN309 LN309 LY81	6.3 6.3 12.6 12.6 6.3	5490-6837 5420-1030 4590-6870 4520-1030 4500-0090	21 25 25 15 0	50	X4 X2 X10 X1 SH	S5 S5 S5 S5	500 425 300 450 650	PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. CAP=P. SHORT ON 1-2-3-4. HOLD DOWN S7 AND PRESS S3
LY88	20.0	4500-9000	0	56	SH	S 3	800	CONNECT CAP TO EXT. SELF BIAS RES. JACKS
LY500	25.0	4500-7010	0	80	SH	S3	350	CONNECT CAP TO PIN 1 OF OCTAL SOCKET. USE ADAPTER SA-8. 1050-168.
LZ319 LZ319 M8079	10.0 10.0 6.3	5420-6371 5490-1086 4300-7215	12 26 0	78	X4 X4 SH	\$5 \$5 \$1	625 675 400	PENTODE SECTION TRIODE SECTION DUAL DIODE. NOTE 1.
M8081 M8083 M8098	6.3 0FF	4356-2170 4310-5726 0000-1020	17 11		X10 X10 VR	S 5 S 5 S 9	325 300 85V	DUAL TRIODE. NOTE 1. 125V. REGULATION = 3V. FROM 1 TO 10 MA.
M8100 M8136	6.3	4310-5620 5472-6183	10 25		X4 X2	\$5 \$5	675 675	DUAL TRIODE. NOTE 1.
M8137 M8162 M8195 M8196 M8212	12.6 12.6 6.3 6.3	5472-6183 5472-6183 5490-6138 4310-5627 4300-7215	14 14 11 0	 78	X4 X4 X4 X2 SH	S5 S5 S5 S5	200 625 300 550 400	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL DIODE. NOTE 1.
N14	1.4	7250-3400	18		X2		475	HOLD DOWN SI AND PRESS S5
N17 N18 N19 N22LL	2.5 3.0 3.0 20.0	7130-2400 7130-2400 7160-2300 4570-9632	23 0 0 34		X2 X4 X4 X4	S4 S5	475 300 300 200	HOLD DOWN SI AND PRESS S5. HOLD DOWN SI AND PRESS S5. USE ADAPTER SA-8, 1050-168.
N30EL N77 N78 N119 N144	6.3 50.0	4310-5720	77 26 10 16 26		X4 X4 X10 X10 X4	\$5 \$5 \$5 \$5 \$5	750 400 500 475 400	CAP=P. NOTE 7
N151 N152 N153 N154 N309	6.3 20.0 12.6 17.0 12.6	8160-2570 5420-0839 5420-7136 5420-7930 5420-7136	17 42 8 23 8		X4 X10 X10 X10 X10	\$5 \$5 \$5 \$5 \$5	500 375 475 350 475	USE ADAPTER SA-5, 1050-129. CAP = P.
N329 N359 N709 N727 OM4	17.0 20.0 6.3 6.3 6.3	5420-7930 5420-0839 5420-7930 4310-5620 7200-3080	23 42 14 18		X10 X10 X10 X4 X2	S5 S5 S5 S5 S5	350 375 475 575 625	CAP = P. TRIODE SECTION. CAP = G.
OM4 PABC80 PABC80 PABC80 PC86	6.3 10.0 10.0 10.0 4.3	7200-5480 5480-9070 5400-6070 5400-2137 5420-1030	19 15 0 0	64 35 78	SH X4 SH SH X10	S1 S5 S1 S1 S5	400 175 400 400 875	DUAL DIODE. NOTE 1. TRIODE SECTION. DIODE NO. 1. DUAL DIODE. NOTE 1.
PC88 PC95 PC97	4.3 3.0 4.3	5490-8020 4320-5670 4320-5016	14 11 13		X20 X10 X10	S 5 S 5 S 5	475 650 800	

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TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MUT.	2 NO 1 TATON
PC900 PCC84	4.3	4310-5076 5462-9371	17 24		X10 X10	S 5 S 5	475 375	DUAL TRIODE. NOTE 1.
PCC85 PCC88 PCC89 PCC189 PCF80	10.0 7.5 7.5 7.5 10.0	5472-6183 5472-6183 4562-9381 5472-6183 5420-6371	14 20 22 22 12		X4 X10 X10 X10 X10	\$5 \$5 \$5 \$5 \$5	625 775 550 475 625	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. PENTODE SECTION.
PCF80 PCF82 PCF82 PCF86 PCF86	10.0 10.0 10.0 7.5 7.5	5490-1086 5420-6370 5490-1080 5420-8930 5460-7030	26 12 10 11 33		X4 X4 X10 X10 X10	\$5 \$5 \$5 \$5 \$5	675 475 525 525 380	TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
PCF200	7.5	5630-7824	15		X10	\$5	375	PENTODE SECTION. USE ADAPTER SA-11 1050-177. MODEL 752# USE SA-11 & CA-4.
PCF200 PCF201	7.5 7.5	56A0-9010 5630-7824	14 14		X4 X10	S5 S5	750 375	NOTE 7. TRIODE SECTION. PENTODE SECTION. USE ADAPTER SA-11. 1050-177. MODEL 752# USE SA-11 & CA-4.
PCF201 PCF801	7.5 7.5	56A0-9010 5420-6710	30 10		X10 X10	S5 S5	300 475	NOTE 7. TRIODE SECTION. PENTODE SECTION.
PCF801 PCF802 PCF802 PCF805 PCF805	7.5 10.0 10.0 7.5 7.5	5490-8030 4520-6370 4590-1080 4570-3280 4590-1080	29 14 13 12 31	400 400 400 400 400 400 400 400 400 400 400 400 400 400 400	X10 X4 X4 X10 X10	\$5 \$5 \$5 \$5 \$5 \$5	550 775 550 450 375	TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
PCH200	10.0	5630-7412	15		X1		700	USE ADAPTER SA-11, 1050-177. MODEL 752A#
PCH200 PCL82 PCL82 PCL83	10.0 17.0 17.0	5680-A090 5430-6720 5410-9080 4590-6870	23 26 0 25		X4 X4 X2 X10	S5 S5 S5 S5	650 625 775 300	USE SA-11 & CA-4. NOTE 7. TRIODE SECTION. PENTODE SECTION. PENTODE SECTION. PENTODE SECTION.
PCL83 PCL84 PCL84 PCL85 PCL85	12.6 17.0 17.0 17.0	4520-1030 5480-6970 5410-2030 5490-6780 5420-1030	15 10 12 36 23		X1 X10 X4 X10 X2	S5 S5 S5 S5 S5	450 630 630 380 960	TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
PCL86 PCL86 PD500 PF86 PFL200	12.6 12.6 7.5 4.3 17.0	5480-6370 5410-9020 4500-8010 5490-6138 5680-A970	11 10 0 11 16	65	X10 X2 SH X4 X10	S5 S5 S1 S5 S5	500 325 500 300 650	PENTODE SECTION. TRIODE SECTION. CAP = G. USE ADAPTER SA-8, 1050-168. PENTODE NO. 1. USE ADAPTER SA-11, 1050-177. MODEL 752A# USE SA-11.
PFL200 PL2021 PL21 PL36 PL81	17.0 6.3 6.3 25.0 20.0	4310-6025	12 0 32 42	93 93 	X10 SH SH X10 X10	\$5 \$6 \$6 \$5 \$5	450 650 650 450 375	STRIKES ABOUT 26. NOTE 6. CAP = P.
PL82 PL83 PL84 PL500 PL505	17.0 12.6 17.0 25.0 35.0	5420-7930 4520-7136 5420-7930 4520-0780 4510-0392	23 8 30 73 90		X10 X10 X10 X4 X10	\$5 \$5 \$5 \$5 \$5	350 475 475 400 475	HOLD DOWN LIFE TEST BUTTON. CAP = P. USE ADAPTER SA-8, 1050-168. CAP = P. USE ADAPTER SA-8, 1050-168.
PL508 PL521 PLL80 PLL80 PM04	17.0 25.0 12.6 12.6 6.3	4580-0392 5420-3170	40 30 14 14 0		X10 X10 X4 X4 X4 X4	\$5 \$4 \$5 \$5 \$5 \$5	475 750 770 770 500	USE ADAPTER SA-8, 1050-168. CAP = P. USE ADAPTER SA-8, 1050-168. PENTODE NO. 1. PENTODE NO. 2.
PM05 PM07 PM84 PM84	6.3 6.3 4.3 4.3	4310-5726 5410-6030	10 11 45 0		X4 X10 X20 X20	\$5 \$5 \$5 \$5 \$5	675 300 	SOLID BAR (SEE BELOW) SPLIT BAR. JUMPER NOVAL SOCKET PINS 7&9. CONNECT A 470K OHM 112 WATT 100/0 RESISTOR FROM THIS JUMPER TO PIN 6

							MIN.	
TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MUT. COND	NOTATIONS
PY80	20.0	5400-9030	0	50	SH	S3	650	
PY81	17.0	5400-0090	0	50	SH		650	CAP = P. SHORT ON 1-2-3-4. HOLD DOWN S7 AND PRESS S3.
PY82 PY88	20.0	5400-9030 5400-9000	0	50 56	SH SH	\$3 \$3	650 800	CONNECT CAP TO EXT. SELF BIAS RES. JACKS
PY500	50.0	4500-7010	0	80	SH	\$3	350	MODEL 7524* CAP=K. CONNECT CAP TO PIN 1 OF OCTAL SOCKET. USE ADAPTER SA-8, 1050-168.
PY800	19.0	5400-0090	0	50	SH		650	CAP = P. SHORT ON 1-2-3-4. HOLD DOWN S7 AND PRESS S3.
QA2403 QA2406 QE03/10	6.3 12.6 6.3	4310-5726 5472-6183 4590-1673	11 14 0		X10 X4 X10	S5 S5 S5	300 625 425	DUAL TRIODE. NOTE 1.
QE05/40 QE05/40F	12.6	7250~0318 7250~0318	12 12		X10 X10	\$4 \$4	425 425	CAP = P. CAP = P.
0E05/40H 0E06/50 0QE02/5 0QE02/5 QQE03/12	25.0 6.3 12.6 12.6 12.6	7250-0318 5130-0240 5431-8720 5413-6720 5431-8720	12 28 12 12 13		X10 X4 X10 X10 X4	\$4 \$5 \$5 \$5 \$5 \$5	425 600 425 425 500	CAP = P. CAP = P. TETRODE NO. 1. TETRODE NO. 2. TETRODE NO. 1.
QQE03/12 QQE03/20 QQE03/20 QQE06/40 QQE06/40	12.6 12.6 12.6 12.6	5413-6720 7162-0340 7126-0340 7162-0340 7126-0340	13 29 29 35 35		X4 X2 X2 X4 X4	\$5 \$5 \$5 \$5 \$5	500 775 775 625 625	TETRODE NO. 2. RIGHT CAP=P. USE ADAPTER SA-6, 1050-107. LEFT CAP = P. RIGHT CAP=P. USE ADAPTER SA-6, 1050-107. LEFT CAP = P.
QQV02/6 QQV02/6 QQV03/10 QQV03/10 QQV03/20A	12.6 12.6 12.6 12.6 12.6	5431-8720 5413-6720 5431-8720 5413-6720 7162-0340	12 12 13 13		X10 X10 X4 X4 X2	\$5 \$5 \$5 \$5 \$5	425 425 500 500 775	TETRODE NO. 1. TETRODE NO. 2. TETRODE NO. 1. TETRODE NO. 2. RIGHT CAP=P. USE ADAPTER SA-6, 1050-107.
QQV03/20A QQV06/40 QQV06/40 QS95/10	12.6 12.6 12.6 OFF	7126-0340 1762-0340 1726-0340 0000-5010	29 35 35 		X2 X4 X4 VR	\$5 \$5 \$5 \$5 \$9	775 625 625 95V	LEFT CAP = P. RIGHT CAP=P. USE ADAPTER SA-6, 1050-107. LEFT CAP = P. NOTES 3&4. 110V. FROM 2 TO 10MA. REGULA- TION = 5V. CONNECT A 470K OHM RESISTOR BETWEEN PINS 1 AND 4 ON ANY SOCKET.
QV05/25	6.3	5130-0240	28		X 4	\$5	600	CAP = P.
STV-85/10 STV-108/30 STV-150/30 U26 U49	OFF OFF OFF 6.3 6.3	0000-1020 0000-5020 0000-5020 4200-0000 4200-0000	0 0	85 85	VR VR VR SH SH	\$9 \$9 \$9 \$6 \$6	85V 108V 150V 400 400	NOTES 364. 125V. FROM 1 TO 10MA. REG.=3V NOTES 364. 115V FROM 5 TO 30MA. REG.=2V. NOTES 364. 155V FROM 5 TO 30MA. REG.≈2V. CAP = P. CAP = P.
U50 U50 U52 U52 U70	5.0 5.0 5.0 5.0	8200-6000 8200-4000 8200-6000 8200-4000 7200-5381	0 0 0	36 36 35 30 20	SH SH SH SH SH	\$3 \$3 \$3 \$3 \$3	400 400 650 650 650	PLATE NO. 1 PLATE NO. 2 PLATE NO. 1. PLATE NO. 2. DUAL DIODE. NOTE 1.
U78 U119 U149 U152 U153	6.3 35.0 6.3 20.0 17.0	4300-6170 5400-9030 8100-6370 5400-9030 5400-0090	0 0 0 0	18 55 20 50 50	SH SH SH SH	\$3 \$3 \$3 \$3	650 800 650 650 650	DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1 CAP = P. SHORT ON 1-2-3-4. HOLD DOWN S7 AND PRESS S3.
U154 U192 U309 U381 U709	20.0 20.0 20.0 35.0 6.3	5400-9030 5400-9030 5400-9030 5400-9030 5400-7130	0 0 0 0	50 50 50 55 42	SH SH SH SH SH	\$3 \$3 \$3 \$3 \$3	650 650 650 800 650	DUAL DIODE. NOTE 1.
UAA91 UABC80 UABC80 UABC80 UAF42	20.0 25.0 25.0 25.0 12.6	4300-7215 5480-9070 5400-6070 5400-2137 8160-2574	0 15 0 0 25	78 35 78	SH X4 SH SH X2	\$1 \$5 \$1 \$1 \$5	400 175 400 400 375	DUAL DIODE. NOTE 1. TRÍODE SECTION. DIODE NO. 1. DUAL DIODE. NOTE 1. PENT. SECT. USE ADAPTER SA-5. 1050-129.
								SEE NEXT PAGE FOR CONTINUATION

TUBE TYPE	FIL.	SFLECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	PIOTATIONS
UAF42 UB41	12.6	8100-3070 8100-6473	0	61 78	SH SH	S1. S1	400 400	DIODE SECT. USE ADAPTER SA-5, 1050-129. DUAL DIODE. USE ADAPTER SA-5, 1050-129
U149 U149 UBC41	20.0 20.0 12.6	5420-6139 5400-8730 8130-2070	14	60	X4 SH X1	\$5 \$1 \$5	450 400 800	NOTE 1 PENTODE SECTION DUAL DIODE, NOTE 1 TRIODE SECT. USE ADAPTER SA-5, 1050-129.
UBC41	12.6	8100-6570	0	27	SH	51	400	DUAL DIDDE. NOTE 1. USF ADAPTER SA-5, 1050-129.
UBC81 UBC81 UBF80 UBF80	12.6 12.6 17.0 17.0	5420-1030 5400-8630 5420-6139 5400-7839	9 0 8 0	27 30	X1 SH X4 SH	\$5 \$1 \$1	800 400 350 400	TRIODE SECTION. DUAL DIODE. NOTE 1. PENTODE SECTION. HOLD DOWN S1 & PRESS S5 DUAL DIODE. NOTE 1.
UBF89 UBF89	20.0	5420-6139 5400-8730	14 0	 60	X4 SH	S5 S1	450 400	PENTODE SECTION. DUAL DIODE. NOTE 1.
UC92 UCC85 UCH42	10.0 25.0 12.6	4360-1070 5472-6183 8160-2574	14 14 19		X 4 X 4 X 2	\$5 \$5 \$5	625 625 400	DUAL TRIODE. NOTE 1. HEPTODE SECT. USE ADAPTER SA-5, 1050-129
UCH42 UCH81 UCH81 UCL82 UCL82	12.6 20.0 20.0 50.0 50.0	8140-3076 5420-6137 5490-8032 5430-6720 5410-9080	27 15 20 26 0		X2 X2 X4 X4 X4 X2	\$5 \$5 \$5 \$5 \$5 \$5	475 475 475 625 775	TRIODE SECT. USE ADAPTER SA-5, 1050-129. HEPTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
UCL83 UCL83 UF41 UF42 UF80	35.0 35.0 12.6 20.0 20.0	4520-1030	25 15 21 10 10		X10 X1 X2 X4 X10	\$5 \$5 \$5 \$5 \$5	300 450 475 725 400	PENTUDE SECTION. TRIODE SECTION. USE ADAPTER SA-5, 1050-129. USE ADAPTER SA-5, 1050-129.
UF85 UF86 UF89 UL41 UL84	20.0 12.6 12.6 50.0 50.0	5490-6138 5420-7839	17 11 12 10 16		X4 X4 X4 X10 X10	\$5 \$5 \$5 \$5 \$5	550 300 475 600 475	USE ADAPTER SA-5, 1050-129.
UM80	20.0	5410-9020		100	SH	\$6		CONNECT A 1 MEGOHM RESISTOR FROM PLATE JACK TO OCTAL SOCKET PIN 7. VARY BIAS
UY41	35.0	8100-2070	0	48	SH	S 3	500	TO VARY BEAM ANGLE. SET 'LINE ADJUST' AT 625. USE ADAPTER SA-5, 1050-129.
UY 42	35.0		0	48 55	ŞH SH	S 3	500 800	SET 'LINE ADJUST' AT 625. USE ADAPTER SA-5, 1050-129.
UY85 UY89	35.0 35.0	4500-9030	0	48	SH	S 3	500	SET 'LINE ADJUST' AT 625 ON 1500 SCALE.
W17 W77 X17 X78 X78	6.3 1.4 6.3		0 15 10 39 21		X2 X4 X2 X2 X2	\$4 \$5 \$4 \$5 \$5		NOTE 2. HEXODE SECTION. TRIUDE SECTION.
X108 X108 X119 X119 X142	20.0 20.0 20.0 20.0 12.6	4320-5107 4370-6000 5420-6137 5490-8032 8160-2574	39 21 15 20 19		X2 X20 X2 X4 X2	\$5 \$5 \$5 \$5 \$5	250 950 475 475 400	HEXODE SECTION. TRIODE SECTION. HEPTUDE SECTION. TRIODE SECTION. HEPTODE SECT. USE ADAPTER SA-5, 1050-129
X142 X719 X719 X727 X727	12.6 6.3 6.3 6.3 6.3	8140-3076 5420-6137 5490-8032 4370-5621 4310-6027	27 15 20 0 20		X2 X2 X4 X2 X10	\$5 \$5 \$5 \$5	475 475 475 250 400	TRIODE SECTION. HEPTODE SECTION. TRIODE SECTION. AMPL. SECTION. HOLD DOWN S1 & PRESS S5. OSCILLATOR SECTION.
XC95 XC97 XC900 XCC82 XCC189	2.0 2.5 2.0 6.3 4.3	4320-5670 4320-5016 4310-5076 4572-6183 5472-6183	11 13 17 25 22		X10 X10 X10 X2 X10	\$5 \$5 \$5 \$5 \$5	650 800 475 675 475	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
XCF80 XCF80 XCF86	4.3 4.3 5.0	5420-6371 5490-1086 4520-8930	12 26 11		X4 X4 X10	\$5 \$5 \$5	625 675 475	PENTODE SECTION. TRIODE SECTION. PENTODE SECTION.
								SEE NEXT PAGE FOR GONTINUATION

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NUTATIONS
XCF86 XCF801	5.0	4560-7030 5420-6710	33 10		X10 X10	S5 S5	350 475	TRIODE SECTION. PENTUDE SECTION
XCF801 XCH81 XCH81 XCL82 XCL82	4.3 3.0 3.0 7.5 7.5	5490-8030 5420-6137 5490-8032 5430-6720 5410-9080	29 15 20 26 0	egy ear dat out ear ear ear ear ear ear ear ear	X10 X2 X4 X4 X2	\$5 \$5 \$5 \$5 \$5	550 475 475 625 775	TRIODE SECTION HEPTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
XCL84 XCL84 XCL85 XCL85 XF80	7.5 7.5 10.0 10.0 3.0	5480-6970 5410-2030 5490-6780 5420-1030 5420-7819	10 12 36 23 10		X10 X4 X10 X2 X10	\$5 \$5 \$5 \$5 \$5	630 630 380 960 400	PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
XF85 XF86 XF183 XF184 XL36	3.0 2.5 3.0 3.0 12.6	5420-7819 5490-6138 5420-7819 5420-7819 7250-0480	17 11 17 10 32		X4 X4 X4 X10 X10	\$5 \$5 \$5 \$5 \$5	550 300 650 500 450	CAP = P.
XL84 XL86 XL500 XY88	7.5 7.5 12.6 17.0	5420-7930 5420-7930 4520-0780 5400-9000	14 16 73 0	 56	X10 X10 X4 SH	S5 S5 S5 S3	475 475 400 800	CAP=P. USE ADAPTER SA-8, 1050-168. CONNECT CAP TO EXT. SELF BIAS RES. JACKS MODEL 752A= CAP=K
YC95 YC97 YCC189 YF183 YF184 YL84	3.0 5.0 4.3 4.3 6.3	4320-5670 4320-5016 5472-6183 5420-7819 5420-7819 5420-7930	11 13 22 17 10 14		X10 X10 X10 X4 X10 X10	\$5	800 475 650 500 475	DUAL TRIODE. NOTE 1.
YL1080 YL1080 YL1370 YL1371 YL1372	1.4 1.4 6.3 12.6 25.0	4513-6700 4531-8700 7250-0318 7250-0318 7250-0318	28 28 12 12		X4 X4 X10 X10 X10	\$5 \$5 \$4 \$4 \$4	350 350 425 425 425	TETRODE NO. 1. TETRODE NO. 2. CAP=P. CAP=P. CAP=P.
Z63 Z77 Z142 Z150 Z152	6.3 6.3 20.0 6.3 6.3	7200-3485 4310-5726 8160-2574 8160-2574 5420-7819	21 11 10 10		X2 X10 X4 X4 X10	\$5 \$5 \$5 \$5 \$5	375 300 725 725 400	CAP=G USE ADAPTER SA-5, 1050-129 USE ADAPTER SA-5, 1050-129
Z719 Z729 ZD17 ZD17 ZD152	6.3 6.3 1.4 1.4 6.3	5420-7819 5490-6138 7160-5400 7100-3000 5420-6139	10 11 13 0 8	15	X10 X4 X1 SH X4	S5 S5 S5 S1	400 300 400 400 350	PENTODE SECTION. DIODE SECTION. PENTODE SECTION. HOLD DOWN SI & PRESS S5
ZD152	6.3	5400-7839	0	30	SH	S 1	400	DUAL DIODE: NOTE 1.





FOREIGN TUBE TYPES

SUPPLEMENTARY TEST DATA for

MODELS 752 & 752A

TUBE TESTERS

NOTATIONS

- NOTE 1: symbol "X" For dual triodes make normal leakage test first, then repeat leakage test for 2nd section with button S8 pressed down and held. Proceed with 1st section Gm test with S8 released. For 2nd section test on all dual tubes, press down and hold button S8 together with button listed in PRESS column.
- NOTE 2: symbol "+" Verify shorts by setting filament switch to OFF position.
- NOTE 3: symbol "★" Approximate starting voltage for voltage regulator tubes.
- NOTE 4: symbol "†" Read 0-100 milliamperes with button S9 pressed down.
- NOTE 5: symbol "VR" For voltage regulator tubes, the figure in the MIN MUT COND (minimum mutual conductance) column indicates the nominal operating voltage.
- NOTE 6: symbol "#" Set BIAS at 100, press and hold down button indicated in the PRESS column while rotating BIAS dial counterclockwise until tube strikes.
- NOTE 7: For TUBE TESTER Models 752, the Universal Adapter CA-5, 1050-164, is available. This Adapter provides tube test sockets for Compactrons, Novars, 5 and 7-pin Nuvistors, and the new 10-pin tubes, including Decals. Test data for these tubes is supplied in supplementary form with the Adapter. The CA-4, 1050-135 Adapter (discontinued) can still be used but requires the use of the SA-11, 1050-177 Adapter for testing decal types.

							MIN. MUT.	NOTATIONS
TUBE TYPE	_	SELECTORS	BIAS	SHUNT	MULT	PRESS	COND	
35D5 38A3	35.0 35.0	4590-6870 4500-9030	0	55	X10 SH	S4 S3	300 800	
40KG6	35.0	4510-0392	90		X10	\$5	475	CAP = P. USE ADAPTER SA-8, 1050-168.
42EC4	50.0	4500-7010	0	66	SH	S 3	350	CONNECT CAP TO PIN 1 OF OCTAL SOCKET.
45A5	50.0	1860-2570	10		X10	S 5	600	USE ADAPTER SA-8, 1050-168. USE ADAPTER SA-5, 1050-129.
4585	50.0	4520-7930	16		X10	S 5	475	
50BM8	50.0	4530-6720	26		X4 X2	S 5 S 5	625	PENTODE SECTION. TRIODE SECTION.
50BM8 50E5	50.0 50.0	4510-9080 7250-0480	32		X10	S 5	450	CAP = P.
50JY6	50.0	2750-0483	55		X10	S 5	350	CAP = P.
85A1	OFF	0000-2080			VR	S 9	85V	120V. REGULATION = 3 V. FROM 1 TO 8 MA. NOTES 3 AND 4.
85A2	OFF	0000-1020			VR	59	85V	125V. REGULATION = 3V. FROM 1 TO 10 MA. NOTES 3 AND 4.
9001	OFF	0000-5070			VR	S 9	900	110V. REGULATION =14 V. FROM 1 TO 40 MA.
95A1	OFF	0000-5010			VR	S 9	95 V	NOTES 3 AND 4. CONNECT 470K OHM RESISTOR BETWEEN PINS 1 AND 4 ANY SOCKET. 110V. REGULATION =5V
108C1	OFF	0000-5020			VR	59	108V	FROM 2 TO 10 MA. NOTES 3 AND 4. 115V. REGULATION = 2V. FROM 5 TO 30 MA. NOTES 3 AND 4.
15082	OFF	0000-1020			VR	S9	150V	160V. REGULATION = 5V. FROM 5 TO 15 MA.
15002	OFF	0000-5020			VR	S 9	150V	NOTES 3 AND 4. 155V. REGULATION = 2 V. FROM 5 TO 30 MA. NOTES 3 AND 4.
5894	12.6	1762-0340	35		X4	S 5	625	RIGHT CAP=P. USE ADAPTER SA-6, 1050-107.
5894 5911	12.6	1726-0340 3540-2100	35 28		X4 X1	S 5 S 5	625 60	LEFT CAP=P.
5913	1.1	3540-1200	25		X1	S 5	250	
5920	6.3	4356-2170	25		X10	S5-	390	DUAL TRIODE. NOTE 1.
6042	25.0	7841-5263	23		X4	\$5	400	DUAL TRIODE. NOTE 1.
6057 6059	12.6	4572-6183 4520-7839	14 20		X4 X2	S 5 S 5	200 375	DUAL TRIODE. NOTE 1.
			,,				425	CUAL TOTODS NOTS 1
6060 6061	12.6	4572-6183 4520-7839	14 18		X4 X4	S 5 S 5	625 575	DUAL TRIODE. NOTE 1.
6063	6.3		0	18	SH .	\$3	650	DUAL DIODE. NOTE 1.
6064	6.3	4310-5726	11		X10	\$5	300	
6065	6.3	4310-5726	15		X4	S 5	225	
6066	6.3	4310-7020	15		X4	\$5	175	TRIODE SECTION.
6066 6067	6.3	4300-6520 4572-6183	0 25	30	SH X2	S1 S5	400 675	DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1.
6118	6.3	7200-3081	15		X4	S 5	175	TRIODE SECTION. CAP = G.
6118	6.3	7200-5483	15	30	SH	S1	400	DUAL DIODE. NOTE 1.
6132	6.3	4520-7839	0		X10	\$5	600	
6227	6.3	4520-7839	15		X10	\$5	425	
6252	12.6	7162-0340	29		X2	\$5		TETRODE NO. 1. RIGHT CAP = P.
6252	12.6	7126-0340	29		X 2	S 5	775	TETRODE NO. 2. LEFT CAP = P. USE ADAPTER SA-6, 1050-107.
6267	6.3	4590-6138	11		X4	\$5	300	OSE ADALTER SA OF 1830 1870
6360		4531-8720 4513-6720	13 13		X4 X4	S5 S5	500 500	TETRODE NO. 1.
6360 6374		4513-6720	13	41	SH SH	\$3	650	CAP = P.
6375	1.1	4510-8000	26		X 4	S 5	425	
6516	6.3	4310-5720	26		X4	S 5	400	
6686	6.3		10		X10	S 5	450	
6687		4370-5621	0		X2	 \$5	375	AMPL. SECTION. HOLD DOWN S1 & PRESS S5.
6687 6688	6.3	4310-5627 4520-7918	8		X2 X10	S5	375 600	USC. SECTION.
6689	6.3		15		X10	\$5	425	
6761	6.3	4520-1730	31		X10	S 5	475	
6883		7250-0318	12		X10	54	425	CAP=P.
6907	12.6	7162-0340	33		X4	\$5	375	RIGHT CAP=P. USE ADAPTER SA-6, 1050-107.
6907 6922		7126-0340 4572-6183	33		X4 X10	S 5 S 5	375 675	
-722	J.5	75.2 0105	~ 1			-	,,,	1111000
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TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
6927 7062 7119 7308 7316	6.3	4356-2170 4572-6183 5472-9163 4572-6183 5472-6183	17 15 17 21 25		x10 x10 x20 x10 x2	\$5 \$5 \$5 \$5 \$5 \$5	325 400 500 675 675	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE NO. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
7320 7534 7643 7643 7645	6.3 6.3 6.3 12.6	4520-7930 7250-0480 4520-6371 4590-1086 4531-8720	14 55 12 26 12		X10 X4 X4 X4 X10	\$5 \$5 \$5 \$5 \$5	475 600 625 675 425	PENTODE SECTION. TRIODE SECTION. TETRODE NO. 1.
7645 7693 7694 7699 7699	12.6 6.3 6.3 12.6 12.6	4513-6720 4310-5627 4310-5627 4531-8720 4513-6720	12 10 10 12		X10 X4 X2 X10 X10	\$5 \$5 \$5 \$5 \$5	425 425 775 425 425	TETRODE NO. 1. TETRODE NO. 1. TETRODE NO. 2.
7721 7737 7751 7788 7854	6.3 6.3 6.3 12.6	4520-7918 4520-7918 2750-3480 4520-7938 1762-0340	11 8 58 12 35		X10 X10 X10 X20 X4	\$5 \$5 \$5 \$5 \$5	625 600 300 350 625	RIGHT CAP=P. USE ADAPTER SA-6, 1050-107.
7854 8223 8233 8255 8278	12.6 6.3 6.3 6.3		35 29 23 14 33		X4 X20 X10 X20 X10	\$5 \$5 \$5 \$5 \$5	625 4400 800 475 650	LEFT CAP = P. DUAL TRIUDE. NOTE 1. USE ADAPTER SA-8, 1050-168.
8298 8348 8348 8416 8457	6.3 1.4 1.4 12.6 12.6	1	12 28 28 21 13		X10 X4 X4 X10 X4	\$4 \$5 \$5 \$5 \$5 \$5	425 350 350 675 500	CAP=P. TETRODE NO. 1. TETRODE NO. 2. DUAL TRIODE. NOTE 1. TETRODE NO. 1
8457 8458 8458	12.6	4531-8720 4513-6720	13		X4 X4	\$5 \$5 \$5	500 500	TETRODE NO. 2 TETRODE NO. I. USE ADAPTER SA-4,1050-144 OR CA-4, 1050-135. NOTE 7. MODEL 752A NOADAPTER REQUIRED. TETRODE NO. 2.
8509 8509	2.0	1462-0300	35 35		X 4 X 4	\$5 \$5	625	IGHT CAP=P.USE ADAPTER SA-6, 1050-107. LEFT CAP=P.
8552 8556 8562 8595 8595	12.6 6.3 6.3 12.6 12.6		12 14 14 12 12		X10 X20 X20 X10 X10	S4 S5 S5 S5 S5	425 775 475 475 475 475	TETRODE NO. 1 TETRODE NO. 2
8608 8637 8637 8737 8737	6.3 12.6 12.6 12.6 12.6	5910-6720 5930-8720	13 37 37 35 35		X20 X10 X10 X4 X4	\$5 \$5 \$5 \$5 \$5	750 300 300 625 625	
18042 18043 18045 18046 18048	20.0 6.3 20.0 17.0 20.0	4520-6139 5420-6139 4520-7839 4520-7839 1860-2473	10 15 10 10 20		X10 X10 X10 X10 X10 X4	\$5 \$5 \$5 \$5 \$5 \$5	550 425 500 500 700	
A2900 AX9903 AX9903 AX9910 AX9910	12.6 12.6 12.6 12.6 12.6	5472-6183 1762-0340 1726-0340 7162-0340 7126-0340	14 35 35 29 29		X 4 X 4 X 4 X 2 X 2	\$5 \$5 \$5 \$5 \$5	625 625 625 775 775	DUAL TRIODE. NOTE 1. RIGHT CAP=P. USE ADAPTER SA-6, 1050-107. LEFT CAP=P. USE ADAPTER SA-6, 1050-107. TETRODE NO. 1. RIGHT CAP = P. TETRODE NO. 2. LEFT CAP = P. USE ADAPTER SA-6, 1050-107.
AZ41 AZ41 B36 B65 B109	4.3 4.3 12.6 6.3 25.0	7800-6000 8700-2000 7841-5263 7841-5263 5472-6183	0 0 23 23 14	0 0	SH SH X4 X4 X4	\$ 3 \$ 3 \$ 5 \$ 5 \$ 5 \$ 5	400 400 400 400 625	PLATE NO. 1. USE ADAPTER SA-5, 1050-129. PLATE NO. 2. USE ADAPTER SA-5, 1050-129. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
8152 8309 8319 8329 8339	12.6 12.6 7.5 12.6 12.6	4572-6183 5472-6183 4562-9371 5472-6183 5472-6183	14 14 24 25 14		X4 X4 X10 X2 X4	\$5 \$5 \$5 \$5 \$5	625 625 375 675 200	DUAL TRIDDE. NOTE 1.
8719 8PM04 C3G C3M CCA	6.3 6.3 6.3 20.0 6.3	5472-6183 4310-5620 1860-3452 1860-2473 4572-6183	14 18 12 20 21		X4 X4 X10 X4 X10	\$5 \$5 \$5 \$5 \$5 \$5	625 575 550 700 675	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
D3A D63 D77 D152 DA90	6.3 6.3 6.3 1.4	4520-7918 7200-5384 3400-7215 3400-7215 7100-2030	11 0 0 0 0	73 78 78 78	X10 SH SH SH SH	\$5 \$1 \$1 \$1 \$1	625 400 400 400 400	DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1.
DAF91 DAF91 DAF92 DAF92 DC70	1.4 1.4 1.4 1.4	1760-5400 1700-3000 1760-2300 1700-4000 4510-8000	13 0 13 0 26	15 15	X1 SH X1 SH X4	\$5 \$1 \$5 \$1 \$5	400 400 400 400 425	PENTODE SECTION. DIODE SECTION. PENTODE SECTION. DIODE SECTION.
DC90 DCC90 DCC90 DCF60	1.4 3.0 3.0 1.1 1.1	7150-2000 1750-6000 1730-2000 4730-1205 4750-6003	16 35 35 12 27		X1 X2 X2 X1 X1	\$5 \$5 \$5 \$5 \$5	675 625 625 300 175	TRIODE NO. 1. TRIODE NO. 2. PENTODE SECTION. NOTE 2. TRIODE SECTION. NOTE 2.
DD6 DDR7 DF33 DF60 DF61	6.3 6.3 1.4 1.1	4300-7215 4310-5720 7200-3400 3540-1200 3500-2041	0 26 11 8 0	78 0	SH X4 X2 X1 SH	S1 S5 S5 S5	400 400 225 525 300	DUAL DIODE: NOTE 1: CAP = G: MAKE NO GAS TEST:
DF62 DF67 DF91 DF92 DF96	1.1 0.6 1.4 1.4	3540-1200 3540-2100 1760-2300 7160-2300 7160-2300	14 28 0 19 25		X4 X1 X2 X2 X2	S4 S5 S4 S5 S5	225 60 225 325 175	
DF904 DH63 DH63 DH77	1.4 6.3 6.3 6.3	1760-2300 7200-3081 7200-5483 4310-7020 4300-6520	14 15 15 15	30	X2 X4 SH X4 SH	\$5 \$5 \$1 \$5 \$1	275 175 400 175 400	TRIODE SECTION. CAP = G. DUAL DIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1.
DK 32	1.4	7250-3400	0		Х2		275	PENTODE SECTION. CAP=G.
DK 32 DK 91 DL 33 DL 35	1.4 1.4 2.5 1.4	7250-6430 1740-3062 7250-3400 7250-3400	24 10 0 18		X1 X2 X2 X2 X2	\$5 \$4 	250 425 625 475	HOLD DOWN S1 AND PRESS S5 OSC. SECTION NOTE 2. HOLD DOWN S1 AND PRESS S5. HOLD DOWN S1 AND PRESS S5.
DL36 DL63 DL63 DL66 DL67	1.4	7250-3400 2700-3080 2700-5480 5340-1200 3540-1200	0 19 19 32 25	64	X2 X2 SH X1 X1	S5 S1 S5	625 625 400 400 250	HOLD DOWN SI AND PRESS S5. TRIODE SECTION. CAP = G. DUAL DIODE. NOTE 1. HOLD DOWN SI AND PRESS S6.
DL91 DL92 DL93 DL94 DL95	2.5	1730-2400 7130-2400 1740-2300 7160-2300 7130-2400	23 23 11 0		X2 X2 X2 X4 X4	S4 S4 	475 475 600 300 300	HOLD DOWN SI AND PRESS S5. HOLD DOWN SI AND PRESS S5. HOLD DOWN SI AND PRESS S5.
DL96 DL98 DM70		1760-2300 5430-7100 5410-8000	23 50 		X2 X2 X2	S4 S5 S6	425 525	ADJUST BIAS TO VARY BAR LENGTH. DO NOT
DM71		5410-8000 4310-5672	17		X2 X2	S 6 S 5	725	ADJUST BIAS BELOW 30. ADJUST BIAS TO VARY BAR LENGTH. DO NOT ADJUST BIAS BELOW 30.
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TUBE T	TYPE	FIL.	SELECTORS	HIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
DX263 DX263 DX296 DX296 DY30	,	2.0 2.0 12.6 12.6	1462-0300 1462-0300 5910-6720 5930-8720 7200-0000	35 35 37 37	80	X4 X4 X10 X10 SH	\$5 \$5 \$5 \$5 \$5 \$6	625 625 300 300 400	RIGHT CAP=P. USE ADAPTER SA-6, 1050-107 LEFT CAP=P TETRIDE NO.1. USF ADAPTER SA-8, 1050-168 TETRODE NO. 2. CAP = P.
DY51		1.4	2700-0000	0	88	SH,	S 6	400	CONNECT FIL. LEADS TO OCTAL SUCKET PINS 2 AND 7. SINGLE LEAD = P.
DY80 DY86 DY87 DY802		1 • 1 1 • 4 1 • 4 1 • 4	1200-0000 4200-0000 4200-0000 1200-0000	0 0	80 85 85 86	SH SH SH	\$6 \$6 \$6 \$6	400 400 400 400	CAP = P. CAP = P. CAP = P. CAP=P.
E55L E80CC E80CF E80CF E80F	,	6.3 12.6 6.3 6.3	4572-6183 5420-6371	23 17 12 26 15	, 	X10 X4 X4 X4 X2	S5 S5 S5 S5 S5	800 425 625 675 575	USE ADAPTER SA-8, 1050-168. DUAL TRIODE. NOTE 1. PENTUDE SECTION. TRIODE SECTION.
E80L E81CC E81L E82CC E83CC	• ;.•	6.3 12.6 6.3 12.6 12.6	5472-6183	15 . 14 10 25 14		X10 X4 X10 X2 X4	\$5 \$5 \$5 \$5 \$5	425 625 450 675 200	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
E83F E84L E86C E88C E88CC		6.3 6.3 6.3 6.3	5420-7930	15 14 14 14 21		X10 X10 X10 X20 X10	S 5 S 5 S 5 S 5 S 5	425 475 880 475 675	DUAL TRIODE. NOTE 1.
E90CC E90F E91AA E91H E91H		6.3 6.3 6.3 6.3	4310-5627 4300-7215 4370-5621	25 10 0 0	78 	X10 X4 SH X2 X2	\$5 \$5 \$1 \$5	390 425 400 375 375	DUAL TRIDDE. NOTE 1. DUAL DIGDE. NOTE 1. AMPL. SECTION. HOLD DOWN S1 & PRESS S5. OSC. SECTION.
E91N E92CC E95F E99F E130L		6.3 6.3 6.3 6.3	4310-6025 4365-1270 4310-5620 4310-5627 7250-0480	15 10 10 55	94	SH X10 X4 X2 X4	\$6 \$5 \$5 \$5 \$5 \$5	650 375 675 775 600	STRIKES AT ABOUT 27. NOTE 6. DUAL TRIODE. NOTE 1.
E180CC E180F E182CC E182F E186F		12.6 6.3 12.6 6.3 6.3	5472-6183 5420-7918 5472-9163 9310-6840 5420-7918	15 8 17 13 8		X10 X10 X20 X20 X10	S5 S5 S5 S5 S5	400 600 500 300 600	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
E188CC E235L E283CC E283CC E288CC		6.3 6.3 6.3 6.3	4590-8017 4520-3067	58 9 9		X10 X10 X2 X2 X2 X20	S5 S5 S5 S5 S5	600	DUAL TRIODE. NOTE 1. TRIODE NO. 1. TRIODE NO. 2. DUAL TRIODE. NOTE 1.
E810F E2134 EA76 EAA91 EAA901		6.3 6.3 6.3 6.3	5420-7938 4310-5720 1400-2030 4300-7215 4300-7215	12 15 0 0	 81 78 78	X20 X10 SH SH SH	S5 S5 S1 S1 S1	350 375 400 400 400	DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1.
EAA901S EABC80 EABC80 EABC80 EAF42		6.3 6.3 6.3 6.3	4300-7215 5480-9070 5400-6070 5400-2137 8160-2574	0 15 0 0 25	78 35 78 	SH X4 SH SH X2	S1 S5 S1 S1 S5	400 175 400 400 375	DUAL DIODE. NOTE 1. TRIODE SECTION. DIODE NO. 1. DUAL DIODE. NOTE 1. PENT. SECT. USE ADAPTER SA-5, 1050-129.
EAF42 EAM86 EAM86 EAM86 EB41		6.3 6.3 6.3 6.3	8100-3070 4580-7693 4580-7693 4500-2030 8100-6473	0 45 78 0 0	61 20 78	SH X20 X20 SH SH	\$1 \$4 \$4 \$1 \$1	400 400 400	DIODE SECT. USE ADAPTER SA-5, 1050-129. SOLID BAR. SPLIT BAR. DIODE. DUAL DIODE. USE ADAPTER SA-5, 1050-129. NOTE 1.
E891		6.3	4300-7215	0	78	SH	S1	400	DUAL DIODE. NOTE 1.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
EC84 EBC33 EBC33 EBC41	6.3 6.3 6.3	8710-5020 2700-3080 2700-5440 8130-2070	16 19 19	64	X10 X2 SH X1	\$5 \$5 \$1 \$5	625 625 400 800	TRIODE SECTION. CAP = G. DUAL DIODE. NOTE 1. TRIODE SECT. USE ADAPTER SA-5, 1050-129.
EBC41	6.3	8100-6570	0	27	SH	S1	400	DUAL DIODE. USE ADAPTER SA-5, 1050-129.
EBC81 EBC81 EBC90 EBC90	6.3 6.3 6.3	5420-1030 5400-8630 4310-7020 4300-6520	9 0 15 0	27 30	X1 SH X4 SH	S5 S1 S5 S1	800 400 175 400	TRIODE SECTION. DUAL DIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1.
EBC91 EBC91 EBF32 EBF32 EBF80	6.3 6.3 6.3 6.3	4310-7020 4300-6520 7200-3681 7200-5481 5420-6139	14 0 22 22 28	30	X4 SH X2 SH X4	\$5 \$1 \$5 \$1 	200 400 300 400 350	TRIODE SECTION. DUAL DIODE. NOTE 1. PENTODE SECTION. CAP = G. DUAL DIODE. NOTE 1. PENTODE SECTION. HOLD DOWN S1 & PRESS S5
EBF80 EBF83 EBF83 EBF89 EBF89	6.3 6.3 6.3 6.3	5400-7839 5420-1639 5400-8730 5420-6139 5400-8730	0 0 0 14 0	30 44 43 60	SH SH SH X4 SH	S1 S1 S1 S5 S1	400 650 400 450 400	DUAL DIDDE. NOTE 1. PENTODE SECTION. DUAL DIDDE. NOTE 1. PENTODE SECTION. DUAL DIDDE. NOTE 1.
EC71 EC80 EC81 EC86 EC88	6.3 6.3 6.3 6.3	3610-8057 5410-9030 5410-8030 5420-1030 5490-8020	10 10 28 14 14		X10 X20 X4 X10 X20	\$4 \$5 \$5 \$5 \$5 \$5	350 375 625 880 475	
EC90 EC91 EC92 EC94 EC95	6.3 6.3 6.3 6.3	4360-1070 4310-7050 4360-1070 4320-1050 4320-5670	25 0 14 16 11		X2 X10 X4 X10 X10	\$5 \$5 \$5 \$4 \$5	675 525 625 400 650	
EC97 EC806S EC900 EC8010 ECC33	6.3 6.3 6.3 6.3	4320-5016 4520-1030 4310-5076 4510-8020 8741-5263	13 14 17 14 15		X10 X10 X10 X20 X4	\$5 \$5 \$5 \$5 \$5	800 875 475 775 400	DUAL TRIODE. NOTE 1.
ECC35 ECC40	6.3	7841-5263 8163-5274	13 20		X.4 X.4	S5 S5	250 450	DUAL TRIODE. NOTE 1. DUAL TRIODE. USE ADAPTER SA-5,
ECC81 ECC82 ECC83	12.6 12.6 12.6	5472-6183 5472-6183 5472-6183	14 25 14		X4 X2 X4	S5 S5 S5	625 675 200	1050-129. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
ECC84 ECC85 ECC86 ECC88 ECC89	6.3	5462-9371 5472-6183 5472-6183 5472-6183 4562-9381	24 14 19 20 22	0	X10 X4 SH X10 X10	\$5 \$5 \$1 \$5 \$5	375 625 875 775 550	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. MAKE NO GAS TEST. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
ECC91 ECC180 ECC186 ECC189 ECC230	6.3 6.3 12.6 6.3 6.3	4356-2170 4572-6183 5472-6183 5472-6183 8741-5263	25 15 25 22 55		X10 X10 X2 X10 X4	\$5 \$5 \$5 \$5 \$5	390 400 675 475 625	DUAL TRIODE. NOTE 1.
ECC801 ECC801S ECC802 ECC802S ECC803	12.6 12.6 12.6 12.6	4572-6183 5472-6183 4572-6183 5472-6183 5472-6183	14 14 25 25 14		X4 X4 X2 X2 X2 X4	\$5 \$5 \$5 \$5 \$5	625 625 675 675 200	DUAL TRIODE. NOTE 1.
ECC803S ECC960 ECC962 ECC2000	12.6 6.3 6.3 6.3	5472-6183 4356-2170 4365-1270 5680-7091	14 25 15 24		X4 X10 X10 X20	\$5 \$5 \$5 \$5	200 390 375 450	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. TRIODE NO. 1. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4.
ECC2000	6.3	5630-A021	24		X20	\$5	450	NOTE 7. TRIODE NO. 2.

TUBE TYPE	FIL.	SELECTORS	RIAS	SHUNT	MULT	PRESS	MIN. MUT. COMD	NOTATIONS
ECF80 ECF82 ECF82 ECF83	6.3 6.3 6.3 6.3	5420-6371 5490-1086 5420-6370 5490-1080 5490-6780	12 26 12 10 10		X4 X4 X4 X10 X2	\$5 \$5 \$5 \$5 \$5 \$5	625 675 475 525 470	PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIUDE SECTION. PENTODE SECTION.
ECF83 ECF86 ECF86 ECF200	6.3 6.3 6.3	5420-3010 5420-8930 5460-7030 5630-7824	32 11 33 15		X2 X10 X10 X10	\$4 \$5 \$5 \$5 \$5	700 525 375 375	TRIDDE SECTION. PENTODE SECTION. TRIDDE SECTION. PENTODE SECTION. 1050-177. MODEL 752# USE SA-11 & CA-4. NOTE 7.
ECF200	6.3	5640-9010	14		X4	S 5	750	TRIODE SECTION.
ECF201	6.3	5630-7824	14		X10	\$5	375	PENTODE SECTION. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4.
ECF201 ECF801 ECF801 ECF802	6.3 6.3 6.3	56A0-9010 5420-6710 5490-8030 4520-6370	30 10 29 14		X10 X10 X10 X4	S 5 S 5 S 5 S 5	300 475 550 775	NOTE 7. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. PENTODE SECTION.
ECF802 ECF804 ECF804 ECF805 ECF805	6.3 6.3 6.3 6.3	4590-1080 4520-6370 4590-1080 4570-3280 4590-1080	13 15 17 12 31		X4 X10 X10 X10 X10	\$5 \$5 \$5 \$5 \$5	550 450 500 450 375	TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
ECH35 ECH35 ECH42 ECH42 ECH81	6.3 6.3 6.3 6.3	7200-3485 7250-6084 8160-2574 8160-3076 5420-6137	10 15 19 27 15		X 2 X 4 X 2 X 2 X 2	\$5 \$5 \$5 \$5 \$5 \$5	500 475 400 475 475	HEXUDE SECTIUN. CAP = G. TRIODE SECTIUN. HEXODE SECT. USE ADAPTER SA-5, 1050-129. TRIODE SECT. USE ADAPTER SA-5, 1050-129. HEPTODE SECTIUN.
ECH81 ECH83 ECH83 ECH84 ECH84	6.3 6.3 6.3 6.3	5490-8032 5470-1632 5490-8030 5420-6731 5490-8030	20 23 7 12 11		X4 X1 X2 X1 X4	\$5 \$1 \$1 \$4	475 600 300 730 400	TRIODE SECTION. HEPTODE SECTION. MAKE NO GAS TEST. TRIODE SECTION. MAKE NO GAS TEST. HEPTODE SECT. HOLD DOWN S1 & PRESS S5. TRIODE SECTION.
ECH200	6.3	5630-7412	15		X1		700	HEPTODE SECT. HOLD DOWN S1 & PRESS S5. USE ADAPTER SA-11, 1050-177. MODEL 752#
ECH200 ECL80 ECL80 ECL82	6.3 6.3 6.3	5680-A090 5490-6837 5420-1030 5430-6720	23 21 25 26		X4 X4 X2 X4	S 5 S 5 S 5 S 5	650 500 425 625	USE SA-11 & CA-4. NOTE 7. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. PENTODE SECTION.
ECL82 ECL83 ECL83 ECL84 ECL84	6.3 6.3 6.3 6.3	5410-9080 4590-6870 4520-1030 5480-6970 5410-2030	0 - 25 15 10		X2 X10 X1 X10 X4	S 5 S 5 S 5 S 5 S 5	775 300 450 630 630	TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
ECL85 ECL85 ECL86 ECL86 ECLL800	6.3 6.3 6.3 6.3	5490-6780 5420-1030 5480-6370 5410-9020 4526-3970	36 23 11 10 15		X10 X2 X10 X2 X4	\$5 \$5 \$5 \$5 \$5	380 960 500 325 775	PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. PENTODE NO. 1.
ECLL800 ECLL800 ED500 EF22 EF40	6.3 6.3 6.3 6.3	4562-8970 4526-1070 4500-8010 8160-2374 8150-2674	15 0 0 23 10	65	X4 X1 SH X04 X2	\$5 \$5 \$1 \$5 \$5	775 100 500 275 600	PENTODE NO. 2. TRIODE SECTION. CAP = G. USE ADAPTER SA-8, 1050-168. USE ADAPTER SA-5, 1050-129.
EF41 EF42 EF71 EF80 EF85	6.3 6.3 6.3 6.3	8160-2570 8160-2574 6310-5740 5420-7819 5420-7819	21 10 13 10		X2 X4 X4 X10 X4	\$5 \$5 \$5 \$5 \$5	475 725 475 400 550	USE ADAPTER SA-5, 1050-129. USE ADAPTER SA-5, 1050-129.
EF86 EF89 EF91	6.3 6.3 6.3	5490-6138 5420-7839 4310-5726	11 12 11		X4 X4 X10	\$5 \$5 \$5	300 475 300	

TUBE TYPE	FIL.	SELECTORS	hIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
EF92 EF93	6.3	4310-5726 4310-5672	15		X4 X4	\$5 \$5	225 500	
EF94 EF95 EF96 EF97 EF98	6.3 6.3 6.3 6.3	4310-5672 4310-5620 4310-5620 4370-6523 4310-6527	10 10 10 0	73	X4 X4 X4 X1 SH	\$5 \$5 \$5 \$1 \$1	475 675 625 500 650	MAKE NO GAS TEST.
EF183 EF184 EF731 EF732 EF800	6.3 6.3 6.3 6.3	5420-7819 5420-7819 6310-5740 6310-5740 5420-7819	17 10 13 16		X4 X10 X4 X4 X10	\$5 \$5 \$5 \$5 \$5	650 500 475 475 400	
EF804S EF804S EF805S EF806S EF861	6.3 6.3 6.3 6.3	5490-7831 5490-7831 5420-7819 4590-6138 5420-7918	11 11 17 11 8		X4 X4 X4 X4 X10	\$5 \$5 \$5 \$5 \$5	300 300 550 300 600	
EF905 EFL200	6.3	4310-5620 5680-A970	10 16		X4 X10	S 5 S 5	675 6 50	PENTUDE NO. 1. USE ADAPTER SA-11, 1050-177. MODEL 752# USE ADAPTER SA-4 &
EFL200 EH90 EH90	6.3	5610-4320 4310-5627 4370-5621	12 16 0		X10 X1 X1	S5 S5 S5	450 300 775	CA-4. NOTE 7. PENTODE NO. 2. GRID NO. 1. GRID NO. 3.
EH900S	6.3	4370-5621	0		X2		475	AMPL. SECTION. HOLD DOWN S1 AND PRESS S5
EH900S EK90 EK90 EL33	6.3 6.3 6.3	4310-5627 4370-5621 4310-6027 7250-3480	0 0 20 13		X2 X2 X10 X10	\$5 \$5 \$5	475 250 400 400	OSC. SECTION AMPL. SECTION. HOLD DOWN S1 & PRESS S5. OSC. SECTION.
EL34 EL36 EL37 EL38 EL41	6.3 6.3 6.3 6.3	7250-3481 7250-0480 7250-3481 7250-0481 8160-2570	23 32 17 0		X10 X10 X10 X10 X10	\$5 \$5 \$5 \$5 \$5	375 450 300 700 600	CAP = P. CAP = P. USE ADAPTER SA-5, 1050-129.
EL42 EL80 EL81 EL83 EL84	6.3 6.3 6.3 6.3	8160-2570 4520-7130 5420-0731 5420-7136 5420-7930	17 10 51 0 14		X4 X10 X10 X10 X10	\$5 \$5 \$5 \$5 \$5	500 600 275 550 475	USE ADAPTER SA-5, 1050-129. CAP = P.
EL85 EL86 EL90 EL91 EL95	6.3 6.3 6.3 6.3	5420-7938 5420-7930 4310-5620 4310-5720 3410-5620	17 16 18 26		X4 X10 X4 X4 X4	\$5 \$5 \$5 \$5 \$5	500 475 575 400 600	
EL180 EL360 EL500 EL503 EL505	12.6 6.3 6.3 6.3	4520-7813 7250-0480 4520-0780 4530-9860 4510-0392	0 32 73 33 90		X10 X10 X4 X10 X10	\$5 \$5 \$5 \$5 \$5	500 450 400 650 475	CAP = P. CAP = P. USE ADAPTER SA-8, 1050-168. USE ADAPTER SA-8, 1050-168. CAP = P. USE ADAPTER SA-8, 1050-168.
EL508 EL509 EL803 EL821 EL822	6.3 6.3 6.3 6.3	4510-6370 4510-0392 5420-7136 5420-7839 5420-7839	40 90 0 0		X10 X10 X10 X10 X10	\$5 \$5 \$5 \$5 \$5	475 475 550 600 600	USE ADAPTER SA-8, 1050-168. CAP=P, USE HICKOK ADAPTER SA-8, 1050-168
ELL80 ELL80 EM34	6.3 6.3 6.3	5420-3170 5460-8970 7240-5080	14	100	X 4 X 4 S H	S5 S5 S6	770 770 	PENTODE NO. 1. PENTODE NO. 2. CONNECT A 1 MEGOHM RESISTOR FROM PLATE JACK TO PIN 3 OF LARGE 7 PIN SOCKET. CONNECT A SECOND 1 MEGOHM RESISTOR FROM PLATE JACK TO PIN 6 OF LARGE 7 PIN SOCKET. EYE ONE CLOSES AT BIAS OF ABOUT 35. EYE TWO CLOSES AT BIAS OF ABOUT 68. BIAS = VARY.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
EM80	6.3	5410-9020		100	SH	\$6		CONNECT A 1 MEGOHM RESISTOR FROM PLATE JACK TO OCTAL TEST SOCKET PIN 7. VARY
EM81	6.3	5410~9020		100	SH	\$6		BIAS TO VARY BEAM ANGLE. CONNECT A 1 MEGOHM RESISTOR FROM PLATE JACK TO OCTAL TEST SOCKET PIN 7. VARY BIAS TO VARY BEAM ANGLE.
EM84 EM84	6.3	5410-6030 5410-6030	45 0		X20 X20	\$5 \$5		SOLID BAR. (SEE BELOW). SPLIT BAR. JUMPER NOVAL SOCKET PINS 769. CONNECT A 470K OHM, 1/2 WATT, 10% RESISTOR FROM THIS JUMPER TO PIN 6.
EM87	6.3 6.3	5410-6030 5410-6030	34 0		X20 X20	\$5 \$5		SOLID BAR. (SEE BELOW). SPLIT BAR. JUMPER NOVAL SOCKET PINS 789. CONNECT A 100K OHM, 1/2 WATT, 10% RESISTOR FROM THIS JUMPER TO PIN 6.
EMM801	6.3	4590-2031	45		X20	\$5		SOLID BAR. (SEE BELOW).
EMM801	6.3	4590-2031	20		X20	S 5		SPLIT BAR. CONNECT A 390K OHM, 1/2 WATT, 10% RESISTOR BETWEEN PINS 2 & 8 OF THE LOCTAL TEST SOCKET.
EMM801 EMM801	6.3	4570-2031 4570-2031	4 5 20		X20 X20	S5 S5		SOLID BAR. (SEE BELOW). SPLIT BAR. CONNECT A 390K OHM, 1/2 WATT, 10% RESISTOR BETWEEN PINS 2 & 6 OF THE LOCTAL TEST SOCKET.
EMM803 EMM803	6.3	4530-6010 4530-6010	40 0		X20 X20	S5 S5		LARGE SOLID BAR. (SEF. BELOW). SPLIT BAR. CONNECT A 470K OHM, 1/2 WATT, 10% RESISTOR BETWEEN PINS 6 & 9 OF THE NOVAL TEST SOCKET.
EMM803 EMM803	6.3	4520-6010 4520-6010	25 0		X20 X20	S 5 S 5		SMALL SOLID BAR. (SEE BELOW). NO BAR. CONNECT A 1 MEGOHM, 1/2 WATT, 10% RESISTOR BETWEEN PINS 6 AND 7 OF THE LOCTAL TEST SOCKET.
EN91 EQ80 EY80	6.3 6.3	4310-6025 5470-1639 5400-9030	29	93 55	SH X2 SH	S6 S5 S3	650 300 650	STRIKES AT ABOUT 26. NOTE 6.
EY81	6.3	5400-0090	0	50	SH		650	CAP = P. SHORT ON 1-2-3-4. HOLD DOWN
EY82 EY84 EY86 EY87	6.3 6.3 6.3	5400-9030 5400-0030 4200-0000 4200-0000	0 0 0	50 41 85 85	SH SH SH	S3 S3 S6 S6	525 650 400 400	S7 AND PRESS S3. CAP = P. CAP = P. CAP = P.
EY88	6.3	5400-9000	0	56	SH	53	800	CONNECT CAP TO EXT. SELF BIAS RES. JACKS
EY91 EY500	6.3	4300-1020 4500-7010	0	18 80	SH SH	\$3 \$3	650 350	MODEL 752A# CAP=K CONNECT CAP TO PIN 1 OF THE OCTAL SOCKET
EZ2 EZ35	6.3	7200-5381 7200-5381	0	20 20	SH SH	\$3 \$3	650 650	USE ADAPTER SA-8, 1050-168. DUAL DIODE. NOTE 1 DUAL DIODE. NOTE 1.
EZ40	6.3	8100-6270	0	0	SH	\$3	650	DUAL DIODE. USE ADAPTER SA-5,
EZ80 EZ81 EZ90 GY501	6.3 6.3 3.0	5400-7130 5400-7130 4300-6170 8100-0000	0 0	0 42 18 90	SH SH SH SH	\$3 \$3 \$3 \$6	650 650 650 400	1050-129. NOTE 1. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. CAP = P. USE ADAPTER SA-8, 1050-168.
GZ30 GZ32 GZ33 GZ34 H63	5.0 5.0 5.0 5.0 6.3	8200-6400 8200-6400 8200-6400 8200-6400 7200-4081	0 0 0 0 12	57 55 62 68	SH SH SH SH X4	\$3 \$3 \$3 \$3 \$5	650 650 800 650 225	DUAL DIDDE. NOTE 1. DUAL DIDDE. NOTE 1. DUAL DIDDE. NOTE 1. DUAL DIDDE. NOTE 1. CAP = G.
H-1112	2.0	3140-0280	10		X 10		450	CAP = P. HOLD DOWN S1 & PRESS S5. USE ADAPTER SA-3, 1050-127. FOR MODEL 752A# USE SELECTORS AC40-0280.
1208	6.3	3140-2080	15		X10	S4	600	SAME AS ABOVE - NO ADAPTER REQUIRED. USE ADAPTER SA-3, 1050-127 OR CA-4, 1050 -135. NOTE 7.
HAA91 HABC80 HABC80	12.6 20.0 20.0	4300-7215 5480-9070 5400-6070	0 15 0	78 35	SH X4 SH	S1 S5 S1	400 175 400	DUAL DIODE. NOTE 1. TRIODE SECTION. DIODE NO. 1.
								SEE NEXT PAGE FOR CONJINUATION

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
HABC80 HBC90 HBC90 HBC91 HBC91	20.0 12.6 12.6 12.6 12.6	5400-2137 4310-7020 4300-6520 4310-7025 4300-6527	0 15 0 14	78 30 30	SH X4 SH X4 SH	S1 S5 S1 S5 S1	400 175 400 200 400	DUAL DIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1.
HCC85 HCH81 HCH81 HCL82 HCL82	17.0 12.6 12.6 35.0 35.0	5472-6183 5420-6137 5490-8032 4530-6720 4510-9080	14 15 20 26 0		X10 X2 X4 X4 X2	\$5 \$5 \$5 \$5 \$5 \$5	375 475 475 625 775	DUAL TRIODE. NOTE 1. HEPTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
HD14 HD14 HD30 HD93 HD94	1.4 1.4 2.5 1.1 6.3	7200-3000 7200-5000 5430-7100 2100-0000 7250-0480	0 0 50 0 28	0 80	X1 SH X2 SH X10	S5 S1 S5 S6 S4	175 400 525 400 350	TRIODE SECTION. CAP = G. DIODE SECTION. CAP = P. CAP = P.
HD96 HF61 HF62 HF93 HF94	25.0 6.3 6.3 12.6 12.6	7250-0480 8160-2570 8160-2574 4310-5672 4310-5672	28 21 10 0 10		X10 X2 X4 X4 X4	S4 S5 S5 S5 S5	350 475 725 500 475	CAP = P. USE ADAPTER SA-5, 1050-129. USE ADAPTER SA-5, 1050-129.
HK90 HK90	12.6	4370-5621 4310-6027	0 20		X2 X10	S5	250 400	AMPL. SECTION. HOLD DOWN S1 & PRESS S5. OSC. SECTION.
HL90 HL92 HL94	20.0 50.0 35.0	4310-5620 4320-7610 9450-7610	18 13 16		X4 X10 X10	\$5 \$5	575 475 475	HOLD DOWN SI AND PRESS 55. BEFORE PLACING TUBE IN SOCKET JUMPER A 33 OHM. 2 WATT RESISTOR BETWEEN PINS 389 ON THE 9-PIN MIN. SOCKET COUNTING COUNTER CLOCKWISE.
HM04 HM04 HP6 HY90 HZ90	6.3 6.3 6.3 35.0 12.6	4370-5621 4310-6027 4310-5726 4300-5070 4300-6170	0 20 11 0	50 18	X2 X10 X10 SH SH	S5 S5 S3 S3	250 400 300 650 650	AMPL. SECTION. HOLD DOWN S1.& PRESS S5. OSCILLATOR SECTION. DUAL DIODE. NOTE 1.
KT61 KT66 KT88 KTZ63 L63	6.3 6.3 6.3 6.3	7250-3480 7250-3481 7250-3481 7200-3485 7350-3080	10 17 13 21 23		X10 X10 X20 X2 X4	S5 S5 S5 S5	450 300 225 375 400	CAP = G.
L77 LC900 LCF80 LCF80 LCF200	6.3 2.5 6.3 6.3	4360-1070 4310-5076 4520-6371 4590-1086 5630-7824	25 17 12 26 15	===	X2 X10 X4 X4 X10	\$5 \$5 \$5 \$5 \$5 \$5	675 475 625 675 375	PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4. NOTE 7.
LCF200 LCF201	6.3	56A0-9010 5630-7824	14 14		X4 X10	S 5 S 5	750 375	PENTODE SECTION. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4.
LCF201 LCF801 LCF801	6.3 5.0 5.0	56A0-9010 5420-6710 5490-8030	30 10 29		X10 X10 X10	\$5 \$5 \$5	300 475 550	NOTE 7. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
LCF802 LCF802 LCH200	6.3 6.3 5.0	4520-6370 4590-1080 5630-7412	14 13 15		X4 X4 X1	\$5 \$5 	775 550 700	PENTODE SECTION. TRIODE SECTION. HEPTODE SECTION. HOLD DOWN \$1/6 PRESS \$5 USE ADAPTER \$A-11, 1050-177. MODEL 752*
LCH200 LCL80	5.0 4.3	5680-A090 5420-1030	23 25		X4 X2	S 5 S 5	650 425	USE SA-11 & CA-4. NOTE 7. TRIODE SECTION. TRIODE SECTION.
LCL80 LCL82 LCL82 LCL84 LCL84	4.3 10.0 10.0 10.0 10.0	5490-6837 4530-6720 4510-9080 4580-6970 4510-2030	21 26 0 10 12		X4 X4 X2 X10 X4	S 5 S 5 S 5 S 5 S 5	500 625 775 625 625	PENTODE SECTION PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.

							MIN. MUT.	NOTATIONS
TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	COND	
LCL85 LCL85 LFL200	10.0	4520-1030 4590-6780 5680-A970	23 36 16		X2 X10 X10	S5 S5 S5	950 375 650	TRIODE SECTION. PENTODE SECTION PENTODE NO. 1. USE ADAPTER SA-11. 1050-177. MODEL 752* USE SA-11 & CA-4. NOTE 7.
LFL200 LL86	10.0	5610-4320 4520-7930	12 16		X10 X10	S 5 S 5	450 475	PENTODE NO. 2.
LL500 LL505 LL521 LN119 LN119	20.0 25.0 20.0 50.0 50.0	4520-0780 4510-0392 4580-0392 5430-6720 5410-9080	73 90 30 26 0		X4 X10 X10 X4 X2	S5 S5 S4 S5 S5	400 475 750 625 775	CAP = P. USE ADAPTER SA-8, 1050-168. CAP = P. USE ADAPTER SA-8, 1050-168. CAP = P. USE ADAPTER SA-8, 1050-168. PENTODE SECTION. TRIODE SECTION.
LN152 LN152 LN309 LN309 LY81	6.3 6.3 12.6 12.6 6.3	5490-6837 5420-1030 4590-6870 4520-1030 4500-0090	21 25 25 15 0	50	X4 X2 X10 X1 SH	\$5 \$5 \$5 \$5 \$5	500 425 300 450 650	PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. CAP=P. SHORT ON 1-2-3-4. HOLD DOWN S7 AND PRESS S3
LY88	20.0	4500-9000	0	56	SH	53	800	CONNECT CAP TO EXT. SELF BIAS RES. JACKS
LY500	25.0	4500-7010	0	80	SH	53	350	MODEL 752A* CAP=K CONNECT CAP TO PIN 1 OF OCTAL SOCKET. USE ADAPTER SA-8, 1050-168.
LZ319 LZ319 M8079	10.0 10.0 6.3	5420-6371 5490-1086 4300-7215	12 26 0	 78	X4 X4 SH	\$5 \$5 \$1	625 675 400	PENTODE SECTION TRIODE SECTION DUAL DIODE. NOTE 1.
M8081	6.3	4356-2170	17		X10	S 5	325	DUAL TRIODE. NOTE 1.
M8083 M8098	6.3 OFF	4310-5726 0000-1020	11		X10 VR	S 5 S 9	300 85V	125V. REGULATION = 3V. FROM 1 TO 10 MA. NOTES 3 & 4.
M8100 M8136	6.3	4310-5620 5472-6183	10 25		X 4 X 2	\$5 \$5	675 675	DUAL TRIODE. NOTE 1.
M8137 M8162 M8195 M8196 M8212	12.6 12.6 6.3 6.3	5472-6183 5472-6183 5490-6138 4310-5627 4300-7215	14 14 11 0	 78	X4 X4 X4 X2 SH	S5 S5 S5 S5	200 625 300 550 400	DUAL TRIDDE. NOTE 1. DUAL TRIDDE. NOTE 1.
N14	1.4	7250-3400	18		X2		475	HOLD DOWN S1 AND PRESS S5
N17 N18	2.5	7130-2400 7130-2400	23		X2 X4	54	475 300	HOLD DOWN S1 AND PRESS S5.
N19 N22LL	3.0	7160-2300 4570-9632	0 34		X4 X4	S 5	300 200	HOLD DOWN SI AND PRESS S5. USE ADAPTER SA-8, 1050-168.
N30EL N77 N78 N119 N144	6.3 6.3 6.3 50.0 6.3	1C50-0324 4310-5720 4310-5720 4520-7930 4310-5720	77 26 10 16 26		X4 X4 X10 X10 X4	\$5 \$5 \$5 \$5 \$5	750 400 500 475 400	CAP=P. NOTE 7
N151 N152 N153 N154 N309	6.3 20.0 12.6 17.0 12.6	8160-2570 5420-0839 5420-7136 5420-7930 5420-7136	17 42 8 23 8		X4 X10 X10 X10 X10	\$5 \$5 \$5 \$5 \$5	500 375 475 350 475	USE ADAPTER SA-5, 1050-129. CAP = P.
N329 N359 N709 N727 OM4	17.0 20.0 6.3 6.3 6.3	5420-7930 5420-0839 5420-7930 4310-5620 7200-3080	23 42 14 18 19		X10 X10 X10 X4 X2	\$5 \$5 \$5 \$5 \$5 \$5	350 375 475 575 625	CAP = P. TRIODE SECTION. CAP = G.
OM4 PABC80 PABC80 PABC80 PABC80 PC86	6.3 10.0 10.0 10.0 4.3	7200-5480 5480-9070 5400-6070 5400-2137 5420-1030	19 15 0 0 14	64 35 78	SH X4 SH SH X10	\$1 \$5 \$1 \$1 \$5	400 175 400 400 875	DUAL DIODE. NOTE 1. TRIODE SECTION. DIODE NO. 1. DUAL DIODE. NOTE 1.
PC88 PC95 PC97	4.3 3.0 4.3	5490-8020 4320-5670 4320-5016	14 11 13		X20 X10 X10	S 5 S 5 S 5	475 650 800	

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TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. CUND	NOTATIONS
PC900 PCC84	4.3 7.5	4310-5076 5462-9371	17 24		X10 X10	S 5 S 5	475 375	DUAL TRIODE. NOTE 1.
PCC85 PCC88 PCC89 PCC189 PCF80	10.0 7.5 7.5 7.5 10.0	5472-6183 5472-6183 4562-9381 5472-6183 5420-6371	14 20 22 22 12		X4 X10 X10 X10 X10 X4	\$5 \$5 \$5 \$5 \$5 \$5	625 775 550 475 625	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. PENTODE SECTION.
PCF80 PCF82 PCF82 PCF86 PCF86	10.0 10.0 10.0 7.5 7.5	5490-1086 5420-6370 5490-1080 5420-8930 5460-7030	26 12 10 11 33		X4 X4 X10 X10 X10	\$5 \$5 \$5 \$5 \$5	675 475 525 525 380	TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
PCF200	7.5	5630-7824	15		X10	S 5	375	PENTODE SECTION. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4.
PCF200 PCF201	7.5 7.5	56A0-9010 5630-7824	14 14		X4 X10	S5 S5	750 375	NOTE 7. TRIODE SECTION. PENTODE SECTION. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4. NOTE 7.
PCF201 PCF801	7.5 7.5	56A0-9010 5420-6710	30 10		X10 X10	S 5 S 5	300 475	TRIODE SECTION. PENTODE SECTION.
PCF801 PCF802 PCF802 PCF805 PCF805	7.5 10.0 10.0 7.5 7.5	5490-8030 4520-6370 4590-1080 4570-3280 4590-1080	29 14 13 12 31		X10 X4 X4 X10 X10	\$5 \$5 \$5 \$5 \$5 \$5	550 775 550 450 375	TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
PCH200	10.0	5630-7412	15		X1		700	HEPTODE SECTION. HOLD DOWN S1 & PRESS S5 USE ADAPTER SA-11, 1050-177. MODEL 7524#
PCH200 PCL82 PCL82 PCL83	10.0 17.0 17.0 12.6	5680-A090 5430-6720 5410-9080 4590-6870	23 26 0 25		X4 X4 X2 X10	S5 S5 S5 S5	650 625 775 300	USE SA-11 & CA-4. NOTE 7. TRIODE SECTION. PENTODE SECTION. PENTODE SECTION. PENTODE SECTION.
PCL83 PCL84 PCL84 PCL85 PCL85	12.6 17.0 17.0 17.0	4520-1030 5480-6970 5410-2030 5490-6780 5420-1030	15 10 12 36 23		X1 X10 X4 X10 X2	\$5 \$5 \$5 \$5 \$5	450 630 630 380 960	TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
PCL86 PCL86 PD500 PF86 PFL200	12.6 7.5 4.3 17.0	5480-6370 5410-9020 4500-8010 5490-6138 5680-A970	11 10 0 11 16	65	X10 X2 SH X4 X10	\$5 \$5 \$1 \$5 \$5	500 325 500 300 650	PENTODE SECTION. TRIODE SECTION. CAP = G. USE ADAPTER SA-8, 1050-168. PENTODE NO. 1. USE ADAPTER SA-11, 1050-177. MODEL 752A# USE SA-11.
PFL200 PL2D21 PL21 PL36 PL81	17.0 6.3 6.3 25.0 20.0	5610-4320 4310-6025 4310-6025 7250-0480 5420-0839	12 0 32 42	93 93 	X10 SH SH X10 X10	\$5 \$6 \$6 \$5 \$5	450 650 650 450 375	PENTODE NO. 2. STRIKES AT ABOUT 26. NOTE 6 STRIKES ABOUT 26. NOTE 6. CAP = P. CAP = P.
PL82 PL83 PL84 PL500 PL505	17.0 12.6 17.0 25.0 35.0	5420-7930 4520-7136 5420-7930 4520-0780 4510-0392	23 8 30 73 90		X10 X10 X10 X4 X10	\$5 \$5 \$5 \$5 \$5	350 475 475 400 475	HOLD DOWN ' LIFE TEST ' BUTTON. CAP = P. USE ADAPTER SA-8, 1050-168. CAP = P. USE ADAPTER SA-8, 1050-168.
PL508 PL521 PLL80 PLL80 PMO4	17.0 25.0 12.6 12.6 6.3	4510-6370 4580-0392 5420-3170 5460-8970 4310-5672	40 30 14 14 0		X10 X10 X4 X4 X4 X4	\$5 \$4 \$5 \$5 \$5	475 750 770 770 500	USE ADAPTER SA-8, 1050-168. CAP = P. USE ADAPTER SA-8, 1050-168. PENTODE NO. 1. PENTODE NO. 2.
PM05 PM07 PM84 PM84	6.3 6.3 4.3 4.3	4310-5620 4310-5726 5410-6030 5410-6030	10 11 45 0		X4 X10 X20 X20	\$5 \$5 \$5 \$5	675 300 	SOLID BAR (SEE BELOW) SPLIT BAR. JUMPER NOVAL SOCKET PINS 789. CONNECT A 470K OHM 112 WATT 100/0 RESISTOR FROM THIS JUMPER TO PIN 6

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TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
PY80	20.0	5400-9030	0 B1A3	50	SH	\$3	650	
PY81	17.0	5400-0090	0	50	SH		650	CAP = P. SHORT ON 1-2-3-4.
PY82 PY88	20.0	5400-9030 5400-9000	0	50 56	SH SH	\$3 \$3	650 800	HOLD DOWN S7 AND PRESS S3. CONNECT CAP TO EXT. SELF BIAS RES. JACKS
PY500	50.0	4500-7010	0	80	SH	53	350	MODEL 752A* CAP=K. CONNECT CAP TO PIN 1 OF OCTAL SOCKET.
PY800	19.0	5400-0090	0	50	SH		650	USE ADAPTER SA-8, 1050-168. CAP = P. SHORT ON 1-2-3-4.
QA2403	6.3	4310-5726	11		X10	S 5	300	HOLD DOWN S7 AND PRESS S3.
QA2406	12.6	5472-6183	14		X 4	S 5	625	DUAL TRIODE. NOTE 1.
QE03/10 QE05/40	6.3	4590-1673 7250-0318	0 12		X10 X10	\$5 \$4	425 425	CAP = P.
QE05/40F	12.6	7250-0318	12		X10	54	425	CAP = P.
QE05/40H	25.0	7250-0318	12		X10	S 4	425	CAP = P. CAP = P.
QE06/50 QQE02/5	6.3	5130-0240 5431-8720	28 12		X4 X10	S 5 S 5	600 425	TETRODE NO. 1.
QQE02/5	12.6	5413-6720	12		X10	S 5	425	TETRODE NO. 2.
QQE03/12	12.6	5431-8720	13		X 4	\$5	500	TETRODE NO. 1.
QQE03/12 QQE03/20	12.6	5413-6720 7162-0340	13 29		X 4 X 2	S 5 S 5	500 775	TETRODE NO. 2. RIGHT CAP=P. USE ADAPTER SA-6, 1050-107.
QQE03/20	12.6	7126-0340	29		X2	\$5	775	LEFT CAP = P.
QQED6/40 QQED6/40	12.6	7162-0340 7126-0340	35 35		X 4 X 4	S 5 S 5	625 625	RIGHT CAP=P. USE ADAPTER SA-6, 1050-107.
QQV02/6	12.6	5431-8720	12		X10	S 5	425	TETRODE NO. 1.
QQV02/6	12.6	5413-6720	12		X10	\$5	425	TETRODE NO. 2.
QQV03/10	12.6	5431-8720	13		X4	S 5	500	TETRODE NO. 1.
QQV03/10 QQV03/20A	12.6	5413-6720 7162-0340	13 29		X 4 X 2	S 5 S 5	500 775	TETRODE NO. 2. RIGHT CAP=P. USE ADAPTER SA-6, 1050-107.
QQV03/20A	12.6	7126-0340	29		X2	S 5	775	LEFT CAP = P.
QQV06/40	12.6	1762-0340	35		X4	S 5	625	RIGHT CAP=P. USE ADAPTER SA-6, 1050-107.
QQV06/40 QS95/10	12.6 OFF	1726-0340	35		X4 VR	S 5 S 9	625 95V	LEFT CAP = P. NOTES 384. 110V. FROM 2 TO 10MA. REGULA-
								TION = 5V. CONNECT A 470K OHM RESISTOR
QV05/25	6.3	5130-0240	28		X4	\$5	600	BETWEEN PINS 1 AND 4 ON ANY SOCKET. CAP = P.
STV-85/10	OFF	0000-1020			VR	S 9	857	
STV-108/30 STV-150/30	OFF	0000-5020			VR VR	S9 S9	108V 150V	NOTES 3&4. 115V FROM 5 TO 30MA. REG.=2V. NOTES 3&4. 155V FROM 5 TO 30MA. REG.=2V.
U26	6.3	4200-0000	0	85	SH	S6	400	CAP = P.
U49	6.3	4200-0000	0	85	SH	\$6	400	CAP = P.
U50 U50	5.0	8200-6000 8200-4000	0	36	SH	S 3	400	PLATE NO. 1
U52	5.0	8200-6000	0	36 35	SH SH	\$3 \$3	400 650	PLATE NO. 2 PLATE NO. 1.
U52 U70	5.0	8200-4000 7200-5381	0	30 20	SH SH	S3 S3	650	PLATE NO. 2.
U78	6.3	4300-6170	0	18	SH	S3	650	DUAL DIODE NOTE 1
U119 U149	35.0	5400-9030	0	55	SH	S 3	800	DUAL DIODE. NOTE 1.
U152	20.0	8100-6370 5400-9030	0	20 50	SH SH	\$3 \$3	650 650	DUAL DIODE. NOTE 1
U153	17.0	5400-0090	0	50	SH		650	CAP = P. SHORT ON 1-2-3-4. HOLD DOWN S7 AND PRESS S3.
U154	20.0	5400-9030	0	50	SH	\$3	650	
U192	20.0	5400-9030	0	50	SH	\$3	650	
U309 U381	20.0	5400-9030 5400-9030	0	50 55	SH	\$3 \$3	650 800	
U709	6.3	5400-7130	Ö	42	SH	\$3	650	DUAL DIODE. NOTE 1.
UAA91	20.0	4300-7215	0	78	SH	S1	400	DUAL DIDDE. NOTE 1.
UABC80 UABC80	25.0	5480-9070 5400-6070	15 0	35	X4 SH	S5 51	175 400	TRIODE SECTION. DIODE NO. 1.
UABC80	25.0	5400-2137	0	78	SH	S1	400	DUAL DIODE. NOTE 1.
UAF42	12.6	8160-2574	25		X2	\$5	375	PENT. SECT. USE ADAPTER SA-5, 1050-129.
								SEE NEXT PAGE FOR CONTINUATION

TUBE TYPE	FIL.	SFLECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	MOTATIONS
UAF42 UB41	12.6	8100 -3 070 8100 -6 473	0	61 78	SH SH	51. 51	400 400	DIODE SECT. USE ADAPTER SA-5, 1050-129. DUAL DIODE. USE ADAPTER SA-5, 1050-129
U149 U149 UBC41	20.0 20.0 12.6	5420-6139 5400-8730 8130-2070	14 0 9	60	X4 SH X1	\$5 \$1 \$5	450 400 800	NOTE 1 PENTIODE SECTION DUAL DIODE. NOTE 1 TRIODE SECT. USE ADAPTER SA-5, 1050-129.
U8C41	12.6	8100-6570	0	27	SH	51	400	DUAL DIGDE. NOTE 1. USF ADAPTER SA-5, 1050-129.
UBC81 UBC81 UBF80 UBF80	12.6 12.6 17.0 17.0	5420-1030 5400-8630 5420-6139 5400-7839	9 0 8 0	27 30	X1 SH X4 SH	\$5 \$1 \$1	800 400 350 400	TRIODE SECTION. DUAL DIODE. NOTE 1. PENTODE SECTION. HOLD DOWN S1 & PRESS S5 DUAL DIODE. NOTE 1.
UBF89 UBF89 UC92 UCC85 UCH42	20.0 20.0 10.0 25.0 12.6	5420-6139 5400-8730 4360-1070 5472-6183 8160-2574	14 0 14 14	60	X 4 SH X 4 X 4 X 2	\$5 \$1 \$5 \$5 \$5	450 400 625 625 400	PENTODE SECTION. DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1. HEPTODE SECT. USE ADAPTER SA-5, 1050-129
UCH42 UCH81 UCH81 UCL82 UCL82	12.6 20.0 20.0 50.0	8140-3076 5420-6137 5490-8032 5430-6720 5410-9080	27 15 20 26 0		X2 X2 X4 X4 X4 X2	\$5 \$5 \$5 \$5 \$5 \$5	475 475 475 475 625 775	TRIODE SECT. USE ADAPTER SA-5, 1050-129. HEPTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
UCL83 UCL83 UF41 UF42 UF80	35.0 35.0 12.6 20.0 20.0	4590-6870 4520-1030 8160-2570 8160-2574 5420-7819	25 15 21 10		X10 X1 X2 X4 X10	\$5 \$5 \$5 \$5 \$5 \$5	300 450 475 725 400	PENTUDE SECTION. TRIODE SECTION. USE ADAPTER SA-5, 1050-129. USE ADAPTER SA-5, 1050-129.
UF85 UF86 UF89 UL41 UL84	20.0 12.6 12.6 50.0 50.0	5420-7819 5490-6138 5420-7839 8160-2570 5420-7930	17 11 12 10 16		X4 X4 X4 X10 X10	\$5 \$5 \$5 \$5 \$5	550 300 475 600 475	USE ADAPTER SA-5, 1050-129.
UM80	20.0	5410-9020		100	SH	56		CONNECT A 1 MEGOHM RESISTOR FROM PLATE JACK TO OCTAL SOCKET PIN 7. VARY BIAS TO VARY BEAM ANGLE.
UY41 UY42	35.0 35.0	8100-2070	0	48 48	SH SH	S 3	500	SET 'LINE ADJUST' AT 625. USE ADAPTER SA-5, 1050-129. SET 'LINE ADJUST' AT 625.
UY85 UY89	35.0 35.0	5400-9030 4500-9030	0	55 48	SH SH	\$3 \$3	800 500	USE ADAPTER SA-5, 1050-129. SET 'LINE ADJUST' AT 625 ON 1500 SCALE.
W17 W77 X17 X78 X78	1.4 6.3 1.4 6.3 6.3	7160-2300 4310-5726 7140-3062 4320-5107 4370-6000	0 15 10 39 21		X2 X4 X2 X2 X2	\$4 \$5 \$4 \$5 \$5 \$5	225 225 425 250 950	NOTE 2. HEXODE SECTION. TRIUDE SECTION.
X108 X108 X119 X119 X142	20.0 20.0 20.0 20.0 12.6	4320-5107 4370-6000 5420-6137 5490-8032 8160-2574	39 21 15 20 19		X2 X20 X2 X4 X2	\$5 \$5 \$5 \$5 \$5	250 950 475 475 400	HEXODE SECTION. TRIODE SECTION. HEPTODE SECTION. TRIODE SECTION. HEPTODE SECT. USE ADAPTER SA-5, 1050-129
X142 X719 X719 X727 X727	12.6 6.3 6.3 6.3 6.3	8140-3076 5420-6137 5490-8032 4370-5621 4310-6027	27 15 20 0 20		X2 X2 X4 X2 X10	\$5 \$5 \$5 \$5	475 475 475 250 400	TRIDDE SECTION. HEPTODE SECTION. TRIODE SECTION. AMPL. SECTION. HOLD DOWN S1 & PRESS S5. OSCILLATOR SECTION.
XC95 XC97 XC900 XCC82 XCC189	2.0 2.5 2.0 6.3 4.3	4320-5670 4320-5016 4310-5076 4572-6183 5472-6183	11 13 17 25 22		X10 X10 X10 X2 X10	S 5 S 5 S 5 S 5 S 5	650 800 475 675 475	DUAL TRIODE. NOTE 1. O
XCF80 XCF80 XCF86	4.3 4.3 5.0	5420-6371 5490-1086 4520-8930	12 26 11		X4 X4 X10	\$5 \$5 \$5	625 675 475	PENTODE SECTION. TRIODE SECTION. PENTODE SECTION.
								SEE NEXT PAGE FOR CONTINUATION .

THE TYPE	E 71	SELECTIONS	RIAC	CLUBIT	MULT	PRESS	MIN. MUT. COND	NUTATIONS
XCF86	5.0	4560-7030	BIAS 33	SHUNT	X10 X10	\$5 \$5	350 475	TRIDDE SECTION. PENTODE SECTION
XCF801 XCF801 XCH81 XCH81 XCL82 XCL82	4.3 4.3 3.0 3.0 7.5 7.5	5420-6710 5490-8030 5420-6137 5490-8032 5430-6720 5410-9080	29 15 20 26 0		X10 X10 X2 X4 X4 X4 X2	\$5 \$5 \$5 \$5 \$5 \$5	550 475 475 625 775	TRIODE SECTION HEPTODE SECTION. TRIODE SECTION. TRIODE SECTION. TRIODE SECTION.
XCL84 XCL84 XCL85 XCL85 XF80	7.5 7.5 10.0 10.0 3.0	5480-6970 5410-2030 5490-6780 5420-1030 5420-7819	10 12 36 23 10		X10 X4 X10 X2 X10	\$5 \$5 \$5 \$5 \$5	630 630 380 960 400	PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION.
XF85 XF86 XF183 XF184 XL36	3.0 2.5 3.0 3.0 12.6	5420-7819 5490-6138 5420-7819 5420-7819 7250-0480	17 11 17 10 32		X4 X4 X4 X10 X10	\$5 \$5 \$5 \$5 \$5	550 300 650 500 450	CAP = P.
XL84 XL86 XL500 XY88 YC95	7.5 7.5 12.6 17.0	5420-7930 5420-7930 4520-0780 5400-9000 4320-5670	14 16 73 0	56	X10 X10 X4 SH X10	\$5 \$5 \$5 \$3	475 475 400 800	CAP=P. USE ADAPTER SA-8, 1050-168. CONNECT CAP TO EXT. SELF BIAS RES. JACKS MODEL 752A= CAP=K
YC97 YCC189 YF183 YF184 YL84	3.0 5.0 4.3 4.3 6.3	4320-5016 5472-6183 5420-7819 5420-7819 5420-7930	13 22 17 10		X10 X10 X10 X4 X10 X10	\$5 \$5 \$5 \$5 \$5 \$5	800 475 650 500 475	DUAL TRIODE. NOTE 1.
YL1080 YL1080 YL1370 YL1371 YL1372	1.4 1.4 6.3 12.6 25.0	4513-6700 4531-8700 7250-0318 7250-0318 7250-0318	28 28 12 12		X4 X4 X10 X10 X10	\$5 \$5 \$4 \$4 \$4	350 350 425 425 425	TETRODE NO. 1. TETRODE NO. 2. CAP=P. CAP=P. CAP=P.
Z63 Z77 Z142 Z150 Z152	6.3 6.3 20.0 6.3 6.3	7200-3485 4310-5726 8160-2574 8160-2574 5420-7819	21 11 10 10		X2 X10 X4 X4 X10	\$5 \$5 \$5 \$5 \$5	375 300 725 725 400	CAP=G USE ADAPTER SA-5, 1050-129 USE ADAPTER SA-5, 1050-129
Z719 Z729 ZD17 ZD17 ZD152	6.3 6.3 1.4 1.4 6.3	5420-7819 5490-6138 7160-5400 7100-3000 5420-6139	10 11 13 0 8	15	X10 X4 X1 SH X4	\$5 \$5 \$5 \$1	400 300 400 400 350	PENTODE SECTION. DIODE SECTION. PENTODE SECTION. HOLD DOWN S1 & PRESS S5
ZD152	6.3	5400-7839	0	30	SH	Sl	400	DUAL DIODE. NOTE 1.

Ghsolete Tube Types

SUPPLEMENTARY TEST DATA for

MODELS 752 & 752A

TUBE TESTERS

MONENCIA	MOTATIONS		28	E											
-	5	Pent. Sect. Triode Sect. Pent. Sect. Triode Sect. Pent. Sect. Triode Sect.	Cap = P USE ADAPTER SA-3, 1050-127	RIGHT CAFF USE HICKOK ADAPTER (SA-4 CODE NO. 1050-107 Left Cap-P											
MUMBHER	_	Pent. Sect. Triode Sect Pent. Sect. Triode Sect Pent. Sect. Triode Sect.	Cap = P use adapte	SA-9 COL											
	MUT COMD	750 800 300 425 350	425 625	625 625 625											
	MULT PRESS	0000000 000000000000000000000000000000	S5 S4 S4	\$5 \$5 \$5											
	MUT	******* 00000	XXX	× × ×											
	SHUMT														
	BIAS	01211121	555	35 35											
	SELECTORS	4520-6370 4590-1080 4590-6780 4510-2030 4580-6790 4520-1030	4510-7020 7250-0318 3140-2080	AC40-2080 1762-0340 1726-0340											
	RE C	4520-6370 4590-1080 4590-6780 4510-2030 4580-6790	7250 3140	7											
L	2	0000000 000000000000000000000000000000	12.6 6.3 752A:	6.3 12.6 12.6											
	TUBE TYPE	10.10.10.10.00.00.01	-												
	2	8445 8445 8446 8446 8489 8489 8489	8552 8552 (8628‡ Mode	8628 AX99											
		#	-121		171-171	121-0						0-127		121-00	
	2	Triode Triode Triode Tools and	ode SA-3, 1050	epo	TEST 3A-3, 105	EST A-3, 105	:		نډ	ect.		.A-3, 105		N-3, 10k	өрс
	35 I		F 4400	.=	w ~	E	급		ĕ	(/)		œ		× ×	Ę.
	HOTATION	ual Tri ual Tri ual Tri ss:x	ual Tri	ual Tric	AD = P KE NO GAS ADAPTER S	KE NO GAS TI P. G=SHELI : ADAPTER S	P. G-SHELL	ap = P	ent. Sect.	riode S	ap = P	E ADAPTER S	ap = P	E ADAPTER SI	ual Tric
-	MD NOTATIONS	XDual XDual XDual CAP-P. H PRESS X	XDual Triode USE ADAPTER SA-3, 1050-127	XDual Triode	Cap = P MAKE NO GAS TEST USE ADAPTER SA-3, 1050-127	MAKE NO GAS TEST CAP-P. G=SHELL USE ADAPTER SA-3, 1050-127	CAP=P. G=SHELL	Cap=P		Triode Sect.	Cap) USE ADAPTER SA-3, 1050-127	Cap=P) USE ADAPTER SA-3, 1050-127	ZDual Triode
-		650 XDual Tr 775 XDual Tr 300 XDual Tr 526 CAP-P. HOLD 525 USE ADAPTER	400 XDual Tri 525 USE ADAPTER	525 475 X Dual Tris 325 350		650 MAKE NO GAS TI 625 CAP-P. G-SHELI USE ADAPTER S.				525 Triode S 500 550 400	Cap		300 450 Cap=P 425 Cap=P 375		500 375 625 625 500 X Dual Tric
MENEMUM	PRESS MUT COMD	\$5 650 \$5 775 \$5 300 \$5 525 \$5 525	H	S5 525 S5 475 S5 325 S5 350	S5 650 S4 425 S1 650	S1 650 S5 625	S5 625	S5 325 S5 500	S5 400 S5 300 S5 625	S5 525 S5 500 S5 550 A00	\$5 700 Cap \$5 700 Cap	S5 650 S5 300	S5 300 S5 450 S4 425 S5 375	S5 750 S5 500	\$5 500 \$5 375 \$5 625 \$5 625 \$5 625
MUMUM	MULT PRESS MUT COND	5 650 x 775 x 5 300 x 5 525 525	400 X	5 525 5 475 5 325 5 350	S5 650 S4 425 S1 650	650 625	S5 625	S5 325 S5 500	S5 400 S5 300 S5 625	5 525 5 500 5 550 5 400	\$5 700 Cap \$5 700 Cap	S5 650 S5 300	S5 300 S5 450 S4 425 S5 375	0 S5 750 0 S5 500	5 500 5 375 5 625 5 625 5 625
MUMUM	MULT PRESS MUT COND	X4 S5 650 X X20 S5 500 X X10 S5 775 X X10 S5 300 X X10 S5 325 X10 S5 525 X10 S5 525	ured. X4 S5 400 X X10 S5 525	S5 525 S5 475 S5 325 S5 350	S5 650 S4 425 S1 650	S1 650 S5 625	S5 625	S5 325 S5 500	S5 400 S5 300 S5 625	S5 525 S5 500 S5 550 A00	\$5 700 Cap \$5 700 Cap	S5 650 S5 300	0 S5 300 S5 450 0 S4 425 0 S5 375	0 S5 750 0 S5 500	\$5 500 \$5 375 \$5 625 \$5 625 \$5 625
MUMBAUM	PRESS MUT COMD	40 X4 S5 650 X 20 X20 S5 500 X 16 X10 S5 775 X 26 X10 S5 300 X 11 X10 S5 525	Hequired. 15 X4 S5 400 X 16 X10 S5 525	16 — X10 S5 525 10 — X10 S5 475 15 — X10 S5 325 46 — X10 S5 350	11 X10 S5 650 12 X10 S4 425 0 70 SH S1 650	0 70 SH S1 650 13 X10 S5 625	13 X10 S5 625	18 X10 S5 325 0 X10 S5 500	17 X10 S5 400 21 X2 S5 300 11 X4 S5 625	13 X10 S5 525 14 X10 S5 500 22 X4 S5 550 10 X10 S5 400	50 X4 S5 700 50 X4 S5 700 Cap 31 X4 S5 625	20 — X20 S5 650 20 — X20 S5 650 26 — X10 S5 300	26 X10 S5 300 65 X4 S5 450 12 X10 S4 425 23 X10 S5 375	12 X10 S5 750 24 X10 S5 500	24 X10 S5 500 10 X20 S5 375 10 X10 S5 625 20 X20 S5 500
MONORMON	BLAS SHUNT MULT PRESS MUT COMD	40 X4 S5 650 X 20 X20 S5 500 X 16 X10 S5 775 X 26 X10 S5 300 X 11 X10 S5 525	Hequired. 15 X4 S5 400 X 16 X10 S5 525	16 — X10 S5 525 10 — X10 S5 475 15 — X10 S5 325 46 — X10 S5 350	11 X10 S5 650 12 X10 S4 425 0 70 SH S1 650	0 70 SH S1 650 13 X10 S5 625	13 X10 S5 625	18 X10 S5 325 0 X10 S5 500	17 X10 S5 400 21 X2 S5 300 11 X4 S5 625	13 X10 S5 525 14 X10 S5 500 22 X4 S5 550 10 X10 S5 400	50 X4 S5 700 50 X4 S5 700 Cap 31 X4 S5 625	20 — X20 S5 650 20 — X20 S5 650 26 — X10 S5 300	26 X10 S5 300 65 X4 S5 450 12 X10 S4 425 23 X10 S5 375	12 X10 S5 750 24 X10 S5 500	24 X10 S5 500 10 X20 S5 375 10 X10 S5 625 20 X20 S5 500
MONORMON	SHUNT MULT PRESS MUT COND	3610–5720 40 X4 S5 650 X 7841–5263 45 X20 S5 500 X 4572–6183 20 X10 S5 775 X 9173–6482 16 X10 S5 300 X 7250–0830 26 X10 525 4560–9730 11 X10 S5 525	3672-8154 15 X4 S5 400 X 3140-2080 16 X10 S5 525	AC40-2080 16 X10 S5 525 4572-6183 10 X10 S5 475 9120-6807 15 X10 S5 325 1CA0-3890 46 X10 S5 350	1430-7826 11 X10 S5 650 7250-0318 12 X10 S4 425 3100-2084 0 70 SH S1 650	AC00-2084 0 70 SH S1 650 1300-0020 13 X10 S5 625	AC00-0020 13 X10 S5 625	2750-0830 18 X10 S5 325 4520-7813 0 X10 S5 500	3410-5627 17 X10 S5 400 6720-1050 21 X2 S5 300 4590-6780 11 X4 S5 625	4530-1020 13 X10 S5 525 4570-1890 14 X10 S5 500 4310-5670 22 X4 S5 550 4310-5627 10 X10 S5 400	1CA0-7890 50 X4 S5 700 Cap 1CA0-3760 31 X4 S5 625	8120-3060 20 X20 S5 650 8120-3060 20 X20 S5 650 3140-2080 26 X10 S5 300	AC40-2080 26 X10 S5 300 7210-0430 65 X4 S5 450 7250-0318 12 X10 S4 425 450-7930 23 X10 S5 375	3460-7050 12 X10 S5 750 3140-2080 24 X10 S5 500	AC40-2080 24 X10 S5 500 2750-3480 10 X20 S5 375 4310-5672 10 X10 S5 625 4310-5672 10 X10 S5 625 5472-6183 20 X20 S5 500
MUNISHUM	FIL SELECTORS BLAS SHUNT MULT PRESS MUT COND	25.0 3610–5720 40 X4 S5 650 x 6.3 7841–5263 45 X20 S5 500 x 6.3 4572-6183 20 X10 S5 775 x 12.6 9173-6482 16 X10 S5 300 x 6.3 7250-0830 26 X10 S5 525 6.3 4560-9730 11 X10 S5 525	25.0 3672-8154 15 X4 S5 400 X 6.3 3140-2080 16 X10 S5 525	6.3 AC40-2080 16 X10 S5 525 12.6 4572-6183 10 X10 S5 475 6.3 9120-6807 15 X10 S5 325 12.6 1CA0-3890 46 X10 S5 350	6.3 1430-7826 11 X10 S5 650 2.6 7250-0318 12 X10 S4 425 6.3 3100-2084 0 70 SH S1 650	6.3 AC00-2084 0 70 SH S1 650 6.3 1300-0020 13 X10 S5 625	25 0 6310-5780 17 X4 SE 400	2750-0830 18 X10 S5 325 4520-7813 0 X10 S5 500	3410-5627 17 X10 S5 400 6720-1050 21 X2 S5 300 4590-6780 11 X4 S5 625	4530-1020 13 X10 S5 525 4570-1890 14 X10 S5 500 4310-5670 22 X4 S5 550 4310-5627 10 X10 S5 400	1CA0-7890 50 X4 S5 700 Cap 1CA0-3760 31 X4 S5 625	25.0 8120-3060 20 X20 S5 650 25.0 8120-3060 20 X20 S5 650 6.3 3140-2080 26 X10 S5 300	6.3 AC40-2080 26 X10 S5 300 6.3 7210-0430 65 X4 S5 450 6.3 7250-0318 12 X10 S4 425 6.3 4520-7930 23 X10 S5 375	6.3 3460-7050 12 X10 S5 750 12.6 3140-2080 24 X10 S5 500	6.3 2750-3480 10 X20 S5 500 6.3 2750-3480 10 X20 S5 375 6.3 4310-5672 10 X10 S5 625 12.6 5472-6183 20 X20 S5 500
MUNISHUM	SELECTORS BLAS SHUNT MULT PRESS MUT COND	25.0 3610–5720 40 X4 S5 650 x 6.3 7841–5263 45 X20 S5 500 x 6.3 4572-6183 20 X10 S5 775 x 12.6 9173-6482 16 X10 S5 300 x 6.3 7250-0830 26 X10 S5 525 6.3 4560-9730 11 X10 S5 525	752A: No Adapter Required. 25.0 3672-8154 15 X4 S5 400 X 6.3 3140-2080 16 X10 S5 525	6.3 AC40-2080 16 X10 S5 525 12.6 4572-6183 10 X10 S5 475 6.3 9120-6807 15 X10 S5 325 12.6 1CA0-3890 46 X10 S5 350	6.3 1430-7826 11 X10 S5 650 12.6 7250-0318 12 X10 S4 425 6.3 3100-2084 0 70 SH S1 650	6.3 AC00-2084 0 70 SH S1 650 6.3 1300-0020 13 X10 S5 625 752A:	25 0 6310-5780 17 X4 SE 400	6.3 2750-0830 18 X10 S5 325 12.6 4520-7813 0 X10 S5 500	12.6 3410-5627 17 X10 S5 400 6.3 6720-1050 21 X2 S5 300 12.6 4590-6780 11 X4 S5 625	12.6 4530-1020 13 X10 S5 525 12.6 4570-1890 14 X10 S5 500 6.3 4310-5670 22 X4 S5 550 6.3 4310-5627 10 X10 S5 400	12.6 1CA0-7890 50 X4 S5 700 Cap 12.6 1CA0-0860 50 X4 S5 700 Cap 12.6 1CA0-3760 31 X4 S5 625	25.0 8120-3060 20 X20 S5 650 6.3 3140-2080 26 X10 S5 300	6.3 AC40-2080 26 X10 S5 300 6.3 7210-0430 65 X4 S5 450 6.3 7250-0318 12 X10 S4 425 6.3 4520-7930 23 X10 S5 375	6.3 3460-7050 12 X10 S5 750 12.6 3140-2080 24 X10 S5 500	6.3 2750-3480 10 X20 S5 500 6.3 2750-3480 10 X20 S5 375 6.3 4310-5672 10 X10 S5 625 12.6 5472-6183 20 X20 S5 500

NOTES

XDUAL TEST. For dual triodes make normal Leakage test first then repeat Leakage test for 2nd section with S8 pressed. Proceed with 1st section GM test. On all dual tubes, for 2nd section test press S8 with button listed in the press column.

*Verify shorts by setting filament switch to OFF position.

*Approximate starting voltage for voltage regulator tubes.

†Read 0-100 milliamperes with S9 pressed.

VR. For voltage regulator tubes the figure in the MINIMUM MUT. COND. column indicates the nominal operating voltage.

#Set BIAS to 100, press proper button, then rotate BIAS dial counterclockwise until tube strikes.

‡For Model 752: A symbol (‡) to the right of the tube type indicates that for TUBE TESTER Model 752, the Universal Adapter CA-5, 1050-164 is available for testing tubes with the more recent type basings, such as, Compactrons, Novars, 5 and 7 pin Nuvistors, ten-pin types, including Decals. The CA-4, 1050-135 Adapter (DISCONTINUED) can still be used but requires the use of the SA-11, 1050-177 Adapter for testing Decal types.

NOTATIONS	Cap-P	USE HICKUX ADAPTER CODE NO. 1050-120	Cap = P		li .	Cap=P	Can=P	USE HICKOK ADAPTER CODE NO. 1050-119 USP HICKOK ADAPTER	CODE NO. 1050-58. CAP = P RING = G	CAP P RING = G Thus Triode	Cap = P Use Adapter SA-3, 1650-127		PRESS S5. STRIKES ABOUT 26	USE ADAPTER SA-3, 1050-127			(SET "LINE ADJUST" AT 675 ON 1500 SCALE IISE ADAPTER SA-3, 1050-127	(005 ADAPTIEN 3A-3, 1030-121	Ser Tine Addisor Al 675 ON 1500 SCALE X Dual Diode									
MENERALIM MUT COND	400	250 400	400	650	650	400		700		325		575	625 650	000	009	500 375	625			650 550	550	650	750 500	375 750	650	300 475	575 475	450
SHUNT MULT PRESS	9S HS					SH S6 X10 S5					SH S6 X10 S4	X10 S4	SH S6	X4 S5 X10 S4		X10 04 X10 055			X4 S5 SH S1	ကဟ	ဟ ဟ	တတ	ကဟ	လ လ	တ	n (n (ဟ ဟ	S
BIAS SHUNT	08 0		0 79			0 87			12	14	10	10	12 # 93	23	0 (26	181		18 0 78	10	10	14:	10	44	6,	17	17	14
FIL SELECTORS	1.1 1200-0000		2.5 1000-0000	4-		2.5 1200-0000 2.0 4320-5010				5.3 7200-0080 5.3 9173-6482	2.0 2700-0000 2.0 3140-2080			2.5 4580-3100 2.0 3140-2080	2.0 AC40-2080				2.0 AC40-2080 2.0 4300-7256					2.5 4310-5672 2.5 3420-5076				
TUBE TYPE						28J2 2BN4					2CN3A (2CW4‡	707	2CY5 2D21	1 1	797	2DX4 2DX4		752										
																						-						
MOTATIONS	(*155V. REGULATION=2 VOLTE.	A 100V.	(**115V.** # 10 % MA. (**115V.** ** ** ** ** ** ** ** ** ** ** ** **	A-105V. REGULATION = 5 VOLTS.	ABAN. REGULATION S VOLTS.	A 115V. REQUESTION 2 VOLTS.	(FROM 5 TO 40 MA. (*180V. REGULATION=4 VOLTS.	A-120V. A-120V. SEGULATION=3 VOLTS.		ADDAL DIODE. HOLD BUTTON DOWN.	Cap = P			CAP-P.CONNECTFIL PINSON OCTAL SOCKET PINS 2 & 7 WITH EXTERNAL LEADS	SET LEAKAGE SWITCH TO POSITION 4. METER WHAT DEFLECT FULL	SCALE FOR A GOOD TUBE Cap=P	CAPP. CONNECT FIL. LUGS TO OCTAL SOCKET PINS 326	Cap = P	Cap = P Cap = P	LEADS TO PINS 1 AND 2	Cap = P	Cap=P	Cap=P	Cap = P	3	Pent. Sect.		
	150V AFEGUATION 2 VOLTS.	75V TEBULATIONS VOLTS.	108V (* 115V. X 115V.	90V FEGULATION S VOLTS.	75V (REGULATION 3 VOLTS.	105V (*115V.) REGULATION S VOLTS.	150V (MEGULATION 4 VOLTS.	85V (A-120).	85V (*124.710N=3 VOLTS. FROM 1 TO 18 MA.		400 Cap=P	625 625 47E	375 400		SET LEAKAGE SWITCH TO POSITION 4. METER WILL DEFLECT FULL	400 Cap=P	400 CAP-P. CONNECT FIL. LUGS 400 TO 00 TAL SOCKET PINS 328 400 CAP PROPERTY PINS 328							ap	3	ent.		
MINIMAN MINIMA	†S9 150V	†S9 75V	†S9 108V	189 90 1	159 75V	†S9 105V	†S9 150V	†S9 85V	1S9 85V	S2 650	S6 400 S6 200	SS	လူလူ	Se 400	00000 0	S6 400	S6 400 S6 400	Se 400	S6 400 S6 400	S3 400 S6 400	S6 400	S6 400	S6 400 S4 425	S6 400 Cap S6 400 Cap	S4 475	S5 400 Pent. S1 400 Diode	S5 275	S5 450
MULT PRESS MUT COMD	150V	757	1087	706	75V	105V	150V	85V	VR †S9 85V	SH S2 650	1 400 5 400 2055	SS	XXX	Se 400	O SH SET LEAKAGE SWITCH TO POSITION LEFTER WILL DEFLECT FULL	S6 400	SH S6 400 SH S6 400	SH S6 400	SH S6 400	SH S6 400	SH S6 400	S6 400	SH S6 400 X2 S4 425	S6 400 Cap S6 400 Cap	X2 S4 475	S5 400 Pent. S1 400 Diode	X2 S5 275 SH S6 650	X1 S5 450
MINIMAN MINIMA	†S9 150V	†S9 75V	†S9 108V	WR ‡89 90V	159 75V	†S9 105V	†S9 150V	†S9 85V	VR †S9 85V	65 SH S2 650	0 0 SH S1 400 0 53 SH S6 400 14 X4 S4 225	25 X1 S5	12 X X X X X X X X X X X X X X X X X X X	90 SH S6 400	N HS	SH S6 400	84 SH S6 400 85 SH S6 400	80 SH S6 400	SH S6 400	0 80 SH S6 400	0 78 SH S6 400	0 53 SH S6 400	0 80 SH S6 400 10 X2 S4 425	0 85 SH S6 400 Cap 0 85 SH S6 400 Cap	X2 S4 475	X1 S5 400 Pent. SH S1 400 Diode	X2 S5 275 550 550 550 550 550 550 550 550 550 5	X1 S5 450
MULT PRESS MUT DIND	†S9 150V	†S9 75V	0000-5020 VR †S9 108V	189 90 1	159 75V	†S9 105V	†S9 150V	0000-2080 VR †S9 85V	0000-1020 VR †S9 85V	0000–5380 0 65 SH S2 650	7100–2030 0 0 SH S1 400 1000–0000 0 53 SH S6 400 3540–1200 14 x4 S4 225	3540-1200 25 X1 S5	12 X X X X X X X X X X X X X X X X X X X	2700-0000 0 90 SH S6 400	- HS 0	80 SH S6 400	3600-0000 0 84 SH S6 400 4200-0000 0 85 SH S6 400	1200-0000 0 80 SH S6 400	53 SH S6 400 57 SH S6 400	7200-0000 0 80 SH S6 400	1200-0000 0 78 SH S6 400	0 53 SH S6 400	7200-0000 0 80 SH S6 400 1740-3062 10 X2 S4 425	4200-0000 0 85 SH S6 400 Cap 4200-0000 0 85 SH S6 400 Can	1730-2400 23 X2 S4 475	1760–5400 13 X1 S5 400 Pent. 1700–3000 0 15 SH S1 400 Diode	1760–2300 14 X2 S5 275	520-7800 0 X1 S5 450

NOTATIONS	HOLD DOWN SI AND PRESS SS Cap = P Cap
MET COND	4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
PRESS	Shorts Only. Shorts Only. Shorts Only.
S SHUNT MULT	st for 1 30 10 10 10 10 10 10
SELECTORS BLAS	-5620 -0000
E SE	3.0 4310-12.5 4310-13.0 4520-13.0 4310-13.0 4310-13.0 4310-13.0 4520-13.0 45
TUBE TYPE	30 C Y 5 3 C C Y 5 3 C C Y 5 3 C C Y 5 3 C C Y 5 3 C C C S 3 C C C S S C C C C C C C C C
MOTATIONS	Cap=P
MUT COND	400 650 Cap=P 400 TDual Diode 400 Tougle Sect. 400 Triode Sect. 400 Triode Sect. 400 Tougle Diode 650 Cap=P 650 Cap=
MUT COND	
SHUNT MULT PRESS MUT COND	\$\int S.S.S.S.S.S.S.S.S.S.S.S.S.S.S.S.S.S.S.
MUT COND	1050 16
BIAS SHUNT MULT PRESS MUT COND	16

D NOTATIONS	PENT. NO. 1. HOLD DOWN S1 AND PRESS S5 PENT. NO. 2. HOLD DOWN S1 AND PRESS S5 AND PRESS S5 AND PRESS S6 HOLD COOLER = P. USE HOLD COOLER = P. USE HOLD COOLER = P. USE	ANODE COOLER -P. USE HIGHORY ADPTER CODE NO. 195-194 Pent. Sect. Diode Sect.	Triode Sect.	XDual Diode Pent, Sect. Diode Sect.	Triode Sect.	Pent. Sect. Triode Sect.	Pent, Sect. Triode Sect. PLATE NO. 1 USE ADAPTER	PLATE NO. 2	Pent. Sect. Triode Sect. XDual Triode	Pent. Sect. Triode Sect.	XDual Diode Pent. Sect.	Pent. Sect. Triode Sect.	Triode Sect. Pent. Sect.	Tetrode Sect. Triode Sect.	Pent. Sect.	Plate No. 1 Plate No. 2	Pent. Sect. Triode Sect. XDual Triode
MENT COND	175	550	500	650 700 725	350 650 650	200	700 500 650	650	475 525 525	475 525	475 475 600 475	350 350	700 700 700	475 525 425	775		550 525 475
PRESS IN	 Only.		S 22	S2-23	, 2, 2, 2, 3, 3, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,		გაგ გ	SS	လွလည္ပ	လူလူင	જે કેટ સ્ટે		လည်း သည်	လ လ လ ၁ လ လ	ນ ເກີນ ເກີນ	888	855 855
SHUNT MULT	X2 X2 Shorts	Shorts X4 SH SH	<u></u>	SXXX TATX	SX10	×× 4 4	XXX TX	SH	*****	×××	42×2	2 × × ×	*×××	×××;	***	SH	*XXX
BLAS SHUNT	0 0 Test for 8	st for 78			150051		15 0 0 10 10	<u> </u>	1001	222	0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	, ,	111	2019	204	988	10
SELECTORS	4570-8219 4570-3216 3750-0120	3750-0120 4520-6319 4500-8070	4520-1736 4520-1736 4310-5620	8200-6400 4520-9137 4500-6087 4590-6738		4560-9870 4520-3010	4560-9871 4520-3019 1300-9000	1300-5000 No Adapter	4590-6783 4510-2030 4572-6183	4590-6780 4510-2030	4580-6790 4500-1230 4560-9870	4590-6780 4510-2030	4510-6780 4510-2030 4520-6730	4520-6370 4520-6370 4590-1080	4530-9170 4590-6783 4510-2030	8200-6000 8200-4000	4520-6370 4590-1080 4572-6183
=	4 4							5.0 A:									4 4 4
TUBE TYPE	4MK8 4MK8 4X150A	4X250B 5AM8 5AM8	(5AN8 5AQ5	5AR4 5AS8 5AS8	5AT8 5AU4 5AU4	5AV8 5AV8 5AV8	5B8 5B8 5BC3‡	\$BC3 Model 752	5BE8 5BK7A	58R8 (58R8 (58R8	5BT8 5BT8 5BW8	50G8 50G8 50G8	50L8 50L8 50M8	(5CQ8 (5CQ8 (5CQ8	5CZ5 (5DH8	5DJ4 5DJ4	(5EA8 5EA8 5ES8
MOTATIONS	PENTODE NO. 1 HOLD DOWN STAND PRESS SS. DOWN STAND PRESS SS. X Dual Triode	Grid No. 1 Grid No. 3 (ANODE COULER P. USE HICKOK ADAPTER CODE	(NO.1650-109. HOLD DOWN ST AND PRESS \$5	Grid No. 1 Grid No. 3	Dual Triode		PENT. NO. 1. HOLD DOWN SI AND PRESS SS PENT. NO. 2. HOLD DOWN SI AND PRESS SS	Pent. Sect. Triode Sect.	Triode No. 1	Triode No. 1 Triode No. 2		Pent. No. 1 Pent. No. 2	HOLD DOWN SI AND PRESS S5.		Pent. Sect. Triode Sect.	Pent. No. 2	Pent. Sect. Triode Sect.
20 S	175 PENTODE NO.1 HOLD DOWN STAND PRESS SS. 175 PENTODE NO.2 HOLD TOWN STAND PRESS SS. 700 ACCOUNT STAND PRESS SS. 425 X Dual Triode			S S S	Ħ		350 PENT. NO. 1. HOLD DOWN SI AND PRESS SS 350 PENT. NO. 2. HOLD CONN. SI AND PRESS SS 350 POWN SI AND PRESS SS		Triode No.	Triode No.	575 475 625	Pent. No. Pent. No.	ΙΔ		Pent. Triod	Pent.	625 Pent. Sect. 500 Triode Sect. 375
MAUT COME	175 175 5 700 5 425 1	S5 700 S5 300 S5 775 Only.	625 5	Grid No. Grid No.	5 500 5 475 X	5 750 5 575	350	5 600 5 750	Triode No.	5 300 Triode No. 5 550 Triode No.	S5 575 S5 475 S5 625	5 325 Pent. No. 5 325 Pent. No.	5 475 5 700 450 H	5 375 5 625 5 500	5 550 5 475	5 225 Pent. 5 225 Pent. 5 750	<u>~</u> ⊢
MULT PRESS MUT COND	175 175 5 700 5 425 1	S5 700 S5 300 S5 775 s Only.	625 S5 700	5 400 5 375 Grid No. 5 300 Grid No.	S5 500 S5 475 X	S5 750 S5 575	350	10 S5 600	5 475 Triode No. 5 200 Triode No.	S5 300 Triode No. S5 550 Triode No.	လွလည	S5 325 Pent. No. S5 325 Pent. No.	S5 475 S5 700 450 P	S5 375 S5 625 S5 500	S5 550 S5 475	S5 225 Pent. S5 225 Pent. S5 750	5 625 P 5 500 T 5 375
MULT PRESS MUT COND	175 175 175 175 175 170 175	X4 S5 700 X1 S5 300 X1 S5 775 for Shorts Only.	625 S5 700	S5 400 S5 375 Grid No. S5 300 Grid No.	S5 500 S5 475 X	S5 750 S5 575	350	10 S5 600	10 S5 475 Triode No. 4 S5 200 Triode No.	S5 300 Triode No. S5 550 Triode No.	လွလည	S5 325 Pent. No. S5 325 Pent. No.	S5 475 S5 700 450 P	S5 375 S5 625 S5 500	S5 550 S5 475	S5 225 Pent. S5 225 Pent. S5 750	S5 625 P S5 500 T S5 375
MAUT COME	0 X2 175 0 X2 175 10 X4 S5 700 17 X10 S5 425 X	10 X4 S5 700 16 X1 S5 300 0 X1 S5 775 Test for Shorts Only.	12 — X4 — 625 10 — X4 S5 700	10 X10 S5 400 12 X1 S5 375 Grid No. 8 X1 S5 300 Grid No. 17 X4 S5 650	10 X10 S5 500 22 X10 S5 475 X	14 X10 S5 750 10 X10 S5 575	0 X1 350 0 X1 350	15 X10 S5 450 21 X4 S5 600	17 X10 S5 475 Triode No. 14 X4 S5 200 Triode No.	14 X10 S5 300 Triode No. 12 X1 S5 550 Triode No.	17 — X10 S5 17 — X10 S5 10 — X10 S5	10 X1 S5 325 Pent. No. 10 X1 S5 325 Pent. No.	10 X10 S5 475 11 X10 S5 700 10 X10 450 P	12 X10 S5 375 14 X20 S5 625 20 X10 S5 500	9 X10 S5 550 17 X10 S5 475	10 X2 S5 225 Fent. 10 X2 S5 225 Pent. 9 X10 S5 750	10 X10 S5 625 P 10 X10 S5 500 T 10 X10 S5 375
SHUNT MULT PRESS MUT COND	570–8219 0 X2 175 570–3216 0 X2 175 310–5627 10 X4 S5 700 572–6183 17 X10 S5 425 N	-5627 10 X4 S5 700 -5627 16 X1 S5 300 -5621 0 X1 S5 775 -0120 Test for Shorts Only.	310–5620 12 X4 625 310–5627 10 X4 S5 700	2 X10 S5 400 2 X1 S5 375 Grid No. 3 X1 S5 300 Grid No. 7 X4 S5 650	520-7819 10 X10 S5 500 572-6183 22 X10 S5 475 X	320-5076 14 X10 S5 750 310-5627 10 X10 S5 575	570–8219 0 X1 350 570–3216 0 X1 350	3010 15 X10 S5 600 8010 15 X10 S5 600 7610 21 X4 S6 750	310-5076 17 X10 S5 475 Triode No. C80-2030 14 X4 S5 200 Triode No.	C80-2030 12 X10 S5 550 Triode No. X1 S5 550 Triode No.	17 — X10 S5 17 — X10 S5 10 — X10 S5	570-8219 10 X1 S5 325 Pent. No. 570-3216 10 X1 S5 325 Pent. No.	520-7819 10 X10 S5 475 520-7819 11 X10 S5 700 520-7839 10 X10 450 H	12 X10 S5 375 14 X20 S5 625 20 X10 S5 500	520-6370 9 X10 S5 550 590-1080 17 X10 S5 475	570-3216 10 X2 S5 225 Pent. 570-3216 10 X2 S5 225 Pent. 570-7819 9 X10 S5 750	590-6780 10 X10 S5 625 P 510-2030 10 X10 S5 500 T 310-5627 10 X10 S5 375
BIAS SHUNT MULT PRESS MUT COMD	570–8219 0 X2 175 570–3216 0 X2 175 310–5627 10 X4 S5 700 572–6183 17 X10 S5 425 N	.3 4310–5627 10 X4 S5 700 .3 4310–5627 16 X1 S5 300 .3 4370–5621 0 X1 S5 775 .3 3750–0120 Test for Shorts Only.	.3 4310–5620 12 X4 625 .3 4310–5627 10 X4 S5 700	3 4310-5627 10 X10 S5 400 3 4310-5627 12 X1 S5 375 Grid No. 3 4370-5621 8 X1 S5 300 Grid No. 3 450-7819 17 X4 S5 650	4520-7819 10 X10 S5 500 4572-6183 22 X10 S5 475 X	3 4320-5076 14 X10 S5 750 3 4310-5627 10 X10 S5 575	350 X1 350 X1 350 X1 350 X1 350 X1 350	.3 4220-6710 11 X10 S5 450 .3 4590-8010 15 X10 S5 600 3 4320-7610 21 X4 SE 760	4310-5076 17 X10 S5 475 Triode No. 1080-2030 14 X4 S5 200 Triode No.	1090-4040 14 X10 S5 300 Triode No. 1080-2030 12 X1 S5 550 Triode No.	4310-5020 17 X10 S5 4310-5076 17 X10 S5 4520-7819 10 X10 S5	4570-8219 10 X1 S5 325 Pent. No. 4570-3216 10 X1 S5 325 Pent. No.	4520-7819 10 X10 S5 475 4520-7819 11 X10 S5 700 4520-7839 10 X10 450 H	4310-5627 12 X10 S5 375 3410-5627 14 X20 S5 625 3410-5627 20 X10 S5 500	4520-6370 9 X10 S5 550 4590-1080 17 X10 S5 475	45/0-8219 10 X2 S5 225 Fent. 4570-3216 10 X2 S5 225 Pent. 4520-7819 9 X10 S5 750	590-6780 10 X10 S5 625 P 510-2030 10 X10 S5 500 T 310-5627 10 X10 S5 375

D NOTATIONS	Plate No. 1 Plate No. 2 XDual Diode HEPT. SECT. HOLD DOWN SI AND PRESS SS. USE (ADAPTER SA-11, 1050-177.	Triode Sect. Pent. Sect. Triode Sect. Pent. sect. USE ADAPTER SA-11, 1050-177.	Triode Sect. Plate No. 1 Plate No. 2	TETRODE NO. 1. USE ADAPTER SA-11, 1050-177. Tetrode No. 2	Pent. Sect. Diode No. 1 Diode No. 2	Triode No. 1 **Dual Triode Pent. No. 1 Pent. No. 2	CONNECT CAP TO EXT. SELF BIAS RES. JACKS [MODEL 752A=CAP=K	PENT. NO. 1. USE ADAPTER SA-11, 1050-177. Pent. No. 2	Fent. Sect. Triode No. 1 Triode No. 2	Pent. Sect. Triode Sect. XDual Triode	Pent. Sect.	Pent. Sect. Triode No. 1 Triode No. 2 Triode No. 1	Triode 100.2 Triode 100.3 connect cap to pin 2 of octal socket Dual Diode
MINIMUM MUT COND	650 650 650 575 700	650 725 350 375	750 400 625	375 375 375			650	400 650 450	700 500 625 775			850 575 625 725	
PRESS		S S S S S S S S S S S S S S S S S S S	လွ်သည့် လူသည်		SS 12 15 15 15 15 15 15 15 15 15 15 15 15 15		83	8 8 8 8 8 8	လည် လည်			8 8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	83 83 83
MULT	RSSXXX TTTX	**** *** ***	×SSX 4HH4	XXX	ST ST ST ST ST ST ST ST ST ST ST ST ST S	XXXX 20 10 10 10	SH	2 2 2 S	××××	××××	×××× 5	**** *****	S X X X
SHUNT	45 38 60	1 1 1	36		87		20				3		56
BIAS	00085	23 10 15	4004	91 97	2500	1112	0 (9 9 2 9	74-00			35 35 17	0 0
SELECTORS	8200-6000 8200-4000 8200-6400 7250-3480 5630-7412	5680-A090 4570-9861 4520-3061 5630-7824	56A0-9010 8200-6000 8200-4000	5690-78A0 5630-1240 7240-8653	1090-BA87 1000-3040 1000-2030	1090-A040 1078-5263 1030-7625	4500-2000	4320-1050 5680-A970 5610-4320	1080-2890 1060-8050 1030-4070 4310-5620	1050-7060 1080-7060 1085-7694	1050-8879 1020-3040 4310-5620	1080-5970 1080-5970 1030-2070 1090-4040	1CB0-2030 4500-9020 4300-7215
른	6.3 5.0 5.0	5.00	60000000000000000000000000000000000000	9 60 6	9 9 9 9	0 0 0 c	6.3 52A:	0 0 0 0 0 0	0000 0000 0000		0 0 0 0 0 0 0 0 0 0	, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,	0 0 0 0 0 0 0 0 0
TUBE TYPE	(5V3 (5V3 5V4 5V6 (5V9‡	5 × 8 8 8 9 4 9 4 9 4 9 4 9 4 9 4 9 4 9 4 9	5X9 5Y3 5Y3 6AB4	(6AB9 (6AB9 6AC7	6AC9 6AC9 6AC9	6AC10‡ 6AC10 6AD10‡	~	6AF4 (6AF9‡ (6AF9	6AF11 6AF11 6AF11 6AG5	6AG7 (6AG9‡ (6AG9 (6AG11‡	6AH9 6AK5 6AK5	6AK9 6AK9 6AK9 6AK9	6AL5
NOTATIONS	Pent. Sect. Triode Sect. Pent. Sect. Triode Sect.	Fent. Sect. Triode Sect. Pent. Sect. Triode Sect.	Pent. Sect. Triode Sect.	Triode Sect.	Pent. Sect. Triode Sect. Triode No. 1	Triode No. 2 Pent. Sect. Triode Sect.	XDual Triode	Pent. Sect. Triode Sect.	Triode Sect. Triode Sect. Triode Sect. Door Sect.	Triode Sect. Triode Sect. Triode Sect.	Triode Sect. Plate No. 1 Priode Sect. Triode Sect.	XDual Diode Diode No. 3 Plate No. 1 Plate No. 2	Tronit. Oct. PENT. SECt. USE ADAPTER SA-11, 1050-17. Triode Sect.
	550 Pent. Sect. 525 Triode Sect. 775 Pent. Sect. 475 Triode Sect.				•	Triode No. Pent. Sect. Triode Sect	H						
MINIMUM MUT COND	\$5 550 \$5 775 \$5 575 \$5 575 \$5 475	855 855 855 855 855 855 855 855 855 855	S5 500 S5 300 S5 575	S5 600 S5 475	S5 300 S5 300 S5 300	S5 550 Triode No. S5 475 Pent. Sect. S5 350 Triode Sect. S5 450	S5 325 X	S5 200 S5 200 S5 200	S5 625 S5 400 S5 400	S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S	\$5 \$3 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5	S3 S3 S3 S3 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5	S5 375 S5 375 S5 300
MULT PRESS MUT COND	550 525 775 575 475	855 855 855 855 855 855 855 855 855 855	S5 500 S5 300 S5 575	S5 600 S5 475	S5 300 S5 300 S5 300	S5 550 Triode No. S5 475 Pent. Sect. S5 350 Triode Sect. S5 450	S5 325 X	S5 200 S5 200 S5 200	S5 625 S5 400 S5 400	S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S	\$5 \$3 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5	S3 S3 S3 S3 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5	S5 375 S5 375 S5 300
MULT PRESS MUT COND	\$5 550 \$5 775 \$5 575 \$5 575 \$5 475	855 855 855 855 855 855 855 855 855 855	S5 500 S5 300 S5 575	S5 600 S5 475	S5 300 S5 300 S5 300	S5 550 Triode No. S5 475 Pent. Sect. S5 350 Triode Sect. S5 450	S5 325 X	S5 200 S5 200 S5 200	S5 625 S5 400 S5 400	S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S	X10 SS 650 SH SS 650 SH SS 650 X4 S5 175	S3 S3 S3 S3 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5 S5	S5 375 S5 375 S5 300
MINIMUM MUT COND	9 X4 S5 550 10 X10 S5 525 11 X4 S5 775 10 X4 S5 575 14 X10 S5 475	15 X4 S5 550 16 X10 S5 450 17 X4 S5 625 13 X10 S5 525 10 X10 S5 525	10 X10 S5 500 33 X10 S5 500 13 X2 S5 575	15 X10 S5 450 22 X4 S5 475 14 X4 S5 700	12 — X4 S5 575 12 — X20 S5 300 14 — X10 S5 300	12 X1 S5 550 Triode No. 11 X10 S5 475 Pent. Sect. 33 X10 S5 350 Triode Sect. 20 X2 S5 450	17 X10 S5 325 X 14 X20 S5 625	20 X10 S5 500 6 X4 S5 700 17 X10 S5 500	17 X10 S5 475 14 X4 S5 625 18 X10 S5 400	10 X10 S5 500 10 X10 S5 500 12 X10 S5 525 10 X10 S5 525	10 X10 S5 G50 G50 G50 G50 G50 G50 G50 G50 G50 G5	0 78 SH S1 400 0 78 SH S1 400 0 35 SH S3 650 0 30 SH S3 650	10 X10 S5 525 14 X10 S5 375 30 X10 S5 300
SHUNT MULT PRESS MUT COND	9 X4 S5 550 10 X10 S5 525 11 X4 S5 775 10 X4 S5 575 14 X10 S5 475	15 X4 S5 550 16 X10 S5 450 17 X4 S5 625 13 X10 S5 525 10 X10 S5 525	10 X10 S5 500 33 X10 S5 500 13 X2 S5 575	15 X10 S5 450 22 X4 S5 475 14 X4 S5 700	12 — X4 S5 575 12 — X20 S5 300 14 — X10 S5 300	12 X1 S5 550 Triode No. 11 X10 S5 475 Pent. Sect. 33 X10 S5 350 Triode Sect. 20 X2 S5 450	17 X10 S5 325 X 14 X20 S5 625	20 X10 S5 500 6 X4 S5 700 17 X10 S5 500	17 X10 S5 475 14 X4 S5 625 18 X10 S5 400	10 X10 S5 500 10 X10 S5 500 12 X10 S5 525 10 X10 S5 525	10 X10 S5 G50 G50 G50 G50 G50 G50 G50 G50 G50 G5	0 78 SH S1 400 0 78 SH S1 400 0 35 SH S3 650 0 30 SH S3 650	10 X10 S5 525 14 X10 S5 375 30 X10 S5 300
BIAS SHUNT MULT PRESS MUT COND	9 X4 S5 550 10 X10 S5 525 11 X4 S5 775 10 X4 S5 575 14 X10 S5 475	4590-6780 10 X4 S5 550 4510-2030 15 X10 S5 450 4520-6370 11 X4 S5 625 4590-1080 13 X10 S5 525 4310-5677 10 X10 S5 575	4590-6780 10 X10 S5 500 4510-2030 33 X10 S5 500 3410-5627 13 X2 S5 575	4520-6710 11 X10 S5 450 4590-8010 15 X10 S5 600 1C90-A040 22 X4 S5 475 1CR0 5030 14 X4 S5 500	4520-6710 12 X4 \$5 575 4590-8010 12 X20 \$5 300 100-8040 14 X10 \$5 300 7	1080-2030 12 X1 S5 550 Triode No. 4520-8930 11 X10 S5 475 Pent. Sect. 4560-7030 33 X10 S5 350 Triode Sect. 2410-5627 10 X2 S5 450	4356–2170 17 X10 S5 325 X 3410–5627 14 X20 S5 625	3410-5627 20 X10 S5 500 4520-6370 6 X4 S5 700 4590-1080 17 X10 S5 500	4520-6370 9 X10 S5 550 4590-1080 17 X10 S5 475 4520-6730 14 X4 S5 625 4590-1080 18 X10 S5 400	4590-6780 10 X10 S5 500 4510-2030 10 X10 S5 550 4590-6780 8 X10 S5 550 4510-2030 12 X10 S5 525	4590-9076 15 X4 S5 650	4500-6273	4500-1080 10 X10 S5 525 5630-7824 14 X10 S5 375 5640-9010 30 X10 S5 300

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NOTATIONS	AMPL SECT. HOLD BOWN SIAND PRESS SS OSC. Sect. Pent. Sect. Triode Sect. Pent. No. 1 Pent. No. 2 Triode Sect.	Diode No. 3 Diode No. 3 Diode No. 3 Cap=P Pent. Sect. Triode No. 7 Triode No. 7	AMPL. SECT. HOLD DOWN STAND PRESS SS OSC. Sect. Pent. No. 1 Pent. No. 2 USE ADAPTER SA.4, 1956	Pent. Sect. Triode Sect. Pent. Sect. [Dual Triode	TDual Diode Diode No. 3 Triode Sect. Triode Sect. Cap = G	Triode No. 1 XDual Triode YDual Triode Pent. Sect. Triode Sect.	Fent. Sect. Triode Sect. Limiter Grid Quarature sno Triode Sect. Dual Diode Pent. No. 1 Pent. No. 2
	Pen Trio	Diode No Cap = P Pent. So Triode Triode Triode	AMPL. SEC DOWNSTA OSC. 9 Pent. Pent. USE ADAPI	Pent. Triodo Pent.	XDual Diode I Triode X Dual D Cap = G	X Dua Y Dua	Triode Limite Quantum Triode XDual I Pent.
MINIMUM MUT COND	222 3375 325 325 325 300 500	400 400 400 400 700 700	650 250 400 375 200 650	375 375 500 350 550	600 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 5 5 0 0 0 0	250 250 425 625 675	625 775 775 500 500 525 400 475 475
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SHUNT MULT	\$\$\$\$\\ \$\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	NOXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XX2 XX2 XX2 SH	*XXXXX	SSXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXX 500144	XX2 XX10 XX10 XX10 XX10 XX10
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BIAS		0080574		. Req. 25 8 25 25 25 25 25 25 25 25 25 25 25 25 25			26 0 16 0 0 0 0 10 10 14
SELECTORS	4570-9132 4520-1037 4570-9860 4520-3010 1040-6387 1040-2385 100-80A0 4520-1060	4500-8697 4500-2010 4572-6183 7200-5010 1C80-2A90 1C60-8050	1000-A070 4370-5621 4310-6027 1080-B490 1030-7625 4500-2090	Adapter 4310–5627 4570–9860 4520–3010 1C80–A9B0 1C64-7352	1000-A070 4500-8697 4500-2013 4580-7090 4500-6132 7200-5010	45/2-6183 1090-A040 1078-5263 7841-5263 4520-6371 4590-1086	4530-6720 4510-9080 4320-5010 4320-5010 4320-7516 4360-7512 4580-7090 4500-6132 1C70-898A 1C30-5426
SELE	4570- 4570- 4570- 1040- 1090- 4310-	4500-4500-4500-4500-4500-11080	1000- 4370- 4310- 1030- 1030- 4500-	No Ac 4310- 4520- 1080- 1064-	4500- 4500- 4500- 7200- 7200-	1090- 1078- 7841- 4520- 4590-	4530 4510 4320 4320 4320 4320 4520 1070 1070
E						,	
TUBE TYPE	V	/	all-all-	++	#*~~~~~ * !	## ## ## N 8 8 8	118 144 166 1111 1111 1111
TUBI	6BA7 6BA8 6BA8 6BA8 6BA1 6BA1 6BC4 6BC4	(6BC7 6BC8 6BC8 6BD4 (6BD111 (6BD111	6BE6 6BE6 6BE6 6BE111 6BF111 6BF111	(Model 6BH6 6BH8 6BH8 6BH11 6BH11	68J3 68J7 68J8 68J8 68J8 68K4	(6BL8 (6BL8 (6BL8 (6BL8	(6BM8 (6BM4 (6BN6 (6BN6 (6BN6 (6BN8 (6BN8 (6BN8 (6BN8 (6BN8 (6BN8 (6BN8 (6BN8
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NS	ect. Sect. 0.1 0.2 0.2 ect.	ect. Sect. o. 1 o. 2	ect. ect. No. 1 No. 2 Sect.	ode sct. Sect.	Sect. Sect. ode & No. 3	Sect. ode sa-4, 1050-144	Sect. ect. cct. sect. iode ode sa-4, 1050-144
OTATIONS	ant. Sect. iode Sect. ant. No. 1 ant. Sect. ode Sect.	iode Sect. iode Sect. ent. No. 1 ent. No. 2	ode Sect. one Sect. int. Sect. iode No. 1 iode Sect.	iode Sect.	iode Sect. iode Sect. ial Diode iode No. 3	iode Sect. Ial Diode	iode Sect. ode Sect. nt. Sect. iode Sect. ial Triode ial Diode
ND NOTATIONS	Pent. Sectorial Sectorial Sectorial Sectorial Sectorial Sectorial Diode Sectorial Sect	×	'	Pent.	Triod Triod Triod Triod Triod Triod	- H	XTriode XDiode Pent. Triode XDual XDual
MINIMUM MUT COND	690 Pent. Sect. 395 Triode Sect. 400 Pent. No. 1 300 Pent. No. 2 400 Pent. Sect. 475 Hold Down St And		· ·			H	650 XTriode Sect. 400 XDiode Sect. 625 Pent. Sect. 500 Triode Sect. 475 XDual Triode 400 XDual Diode 650 use Adapter 8A4, 1030-144 325 500
MINIMUM MUT COND	\$55 \$55 \$55 \$55 \$55 \$50 \$55 \$50 \$55 \$50 \$55 \$50 \$55 \$55	\$5 700 \$5 525 \$5 575 \$5 550 \$5 550 \$4 625	\$5 \$1 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5	S5 326 S5 350 S5 350 S5 350 S5 475	SS 300 SS 200 SS 200 SS 750	S3 650 S3 650 S3 650 S3 650	HHT HH 3
MINIMUM MUT COND	088 088 088 088 088 098 098 098 098 098	\$5 700 \$5 525 \$5 575 \$5 550 \$5 550 \$4 625	\$5 \$1 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5	S5 326 S5 350 S5 350 S5 350 S5 475	SS 300 SS 200 SS 200 SS 750	S3 650 S3 650 S3 650 S3 650	650 X 625 F 625 F 500 X 400 X 650 W
SHUNT MULT PRESS MUT COND	\$55 \$55 \$55 \$55 \$55 \$50 \$55 \$50 \$55 \$50 \$55 \$50 \$55 \$55	\$5 700 \$5 525 \$5 575 \$5 550 \$5 550 \$4 625	\$5 \$1 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5	X4 S5 725 X10 S5 850 X10 S4 855 X10 S4 855 X10	SS 300 SS 200 SS 200 SS 750	S3 650 S3 650 S3 650 S3 650	\$5 650 XT
MINIMUM MUT COND	5 X10 S5 690 14 X10 S5 395 19 X10 S5 395 22 X2 X2 S5 300 26 X4 S5 400 178 X4 S5 50 13 X10 S5 475 7 X10 S7 800	10 X4 S5 700 24 X4 S5 525 18 X4 S5 575 5 X10 S5 550 0 X2 S5 550 55 X4 S4 625 X	10 X4 S5 700 15 SH S1 400 16 X10 S5 325 11 X10 S5 500 16 X4 S5 600 17 X4 S5 175	10 30 SH SI 400 1 10	13 — X10 S5 3/0 14 — X4 S5 200 0 30 SH S1 400 23 — X2 S5 750 24 X2 S5 750	13 X10 S5 250 0 40 SH S3 650 0 40 SH S3 650 0 40 SH S3 650 0 52 SH S3 650	Required. X1 S5 650 X7 0 78 SH S1 400 XI 0 73 SH S5 500 1 23
BIAS SHUNT MULT PRESS MUT COND	A94 5 X10 S5 690 A90 19 X10 S5 895 A90 19 X10 S5 395 A724 22 X2 S5 300 5720 26 X4 S5 400 S319 10 X4 S5 550 S319 10 X4 S5 550 B070 13 X10 S5 475 S670 7 X10 S5 475	5791 10 X4 S5 700 1736 24 X4 S5 525 5620 18 X4 S5 575 3987 5 X10 S5 550 364 5 X10 S5 550 5627 0 X2 S5 550 5263 55 X4 S4 625 N	3087 10 X4 S5 700 5087 0 78 SH S1 400 5080 15 X10 S5 325 5050 11 X10 S5 500 070 16 X4 S5 600	5520 0 30 SH SI 400 2 5738 10 — X4 S5 725 5038 15 — X10 S5 350 630 0 58 SH S3 650 830 18 — X10 S4 350 672 10 — X4 S5 475	25	-3019 13 X10 S5 250 -4070 0 40 SH S3 650 -5030 0 40 SH S3 650 -5380 0 40 SH S3 400 X -2090 0 52 SH S3 650	Japter Required. X1 S5 650 X1 7694 13 X1 S5 650 X1 7832 0 78 SH S1 400 X1 1230 10 X4 S5 625 F 1230 10 X4 S5 500 1 6472 23 X4 S5 475 X1 A890 0 73 SH S3 650 * 1apter Required. X4 S5 325 * 5780 18 X4 S5 500 *
SHUNT MULT PRESS MUT COND	1CB0-2A94 5 X10 S5 690 1C50-7060 14 X10 S5 395 1C80-BA90 19 X10 S5 400 3410-5720 26 X2 S5 300 4520-6319 10 X4 S5 550 4500-8070 0 78 SH S1 400 4310-5670 7 X10 425	4580-6791 10 X4 S5 700 4520-1736 24 X4 S5 525 4310-5620 18 X4 S5 575 1CA0-89B7 5 X10 S5 550 1C50-2364 5 X10 S5 550 4310-5627 0 X2 S5 550 7841-5263 55 X4 S4 625 X	4520–9137 10 X4 S5 700 4500–6087 0 78 SH S1 400 1C80-2A90 15 X10 S5 325 1C60-8050 11 X10 S5 500 1C30-4070 16 X4 S5 175	4300-6520 0 30 SH SI 400 2 4590-6738 10 X4 S5 725 725 725 720 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	4570–9860 10 X10 S5 370 4520–3010 13 X10 S5 300 4310–7025 14 X4 S5 200 4300–6527 0 30 SH S1 400 1097–A546 23 X2 S5 750 1670–2030 23 X2 S5 750	4520–3019 13 X10 S5 250 1C00–4070 0 40 SH S3 650 7800–5380 0 40 SH S3 400 X 4500–2090 0 52 SH S3 650	Japter Required. X1 S5 650 X1 7694 13 X1 S5 650 X1 7832 0 78 SH S1 400 X1 1230 10 X4 S5 625 F 1230 10 X4 S5 500 1 6472 23 X4 S5 475 X1 A890 0 73 SH S3 650 * 1apter Required. X4 S5 325 * 5780 18 X4 S5 500 *
BIAS SHUNT MULT PRESS MUT COND	A94 5 X10 S5 690 A90 19 X10 S5 895 A90 19 X10 S5 395 A724 22 X2 S5 300 5720 26 X4 S5 400 S319 10 X4 S5 550 S319 10 X4 S5 550 B070 13 X10 S5 475 S670 7 X10 S5 475	3 4580-6791 10 X4 S5 700 3 4520-1736 24 X4 S5 525 3 4310-5620 18 X4 S5 575 3 1CA0-89B7 5 X10 S5 550 3 1C50-2364 5 X10 S5 550 3 4310-5627 0 X2 S5 550 5 7841-5263 55 X4 S4 625 1	3 4520-9137 10 X4 S5 700 3 4500-6087 0 78 SH S1 400 3 1C80-2A90 15 X10 S5 325 3 1C60-8050 11 X10 S5 500 3 1C30-4070 16 X4 S5 600 3 4310-7020 15 X4 S5 175	3 4500-6520 0 30 SH SI 400 2 4500-6738 10 X4 S5 725 350 4510-2038 15 X10 S5 350 3 7800-5030 0 58 SH S3 650 3 7210-5830 18 X10 S4 S5 475 350 350 4510 5670 10 X10 S4 S5 475	3 4570–9860 10 X10 55 370 3 4520–3010 13 X10 S5 300 3 4310–7025 14 X4 S5 200 3 4300–6527 0 30 SH S1 400 3 1C97–A546 23 X2 S5 750 3 4570–9860 23 X2 S5 750	6.3 4500–3019 13 X10 S5 250 6.3 1000-4070 0 40 SH S3 650 6.3 7200–5380 0 40 SH S3 400 X 6.3 4500-2090 0 52 SH S3 650	A: No Adapter Required. 6.3 1085-7694 13 X1 S5 650 X7 6.3 1000-A382 0 78 SH S1 400 XI 6.3 4560-1230 10 X4 S5 625 F 6.3 4590-8070 24 X4 S5 500 7 6.3 1000-A890 0 73 SH S1 400 XI 6.3 4500-2090 0 57 SH S3 650 W A: No Adapter Required. A: No Adapter Required. 6.3 4310-5672 0 X4 S5 500
SELECTORS BIAS SHUNT MULT PRESS MUT COND	6.3 1CB0-2A94 5 X10 S5 690 6.3 1C50-7060 14 X10 S5 395 6.3 1C80-BA90 19 X10 S5 300 6.3 3410-5720 26 X2 S5 300 6.3 4520-6319 10 X4 S5 550 6.3 4500-8070 0 78 SH S1 400 6.3 4320-1050 13 X10 S5 475	6.3 4580-6791 10 X4 S5 700 6.3 4520-1736 24 X4 S5 525 6.3 4310-5620 18 X4 S5 575 6.3 1CA0-89B7 5 X10 S5 550 6.3 150-2364 5 X10 S5 550 6.3 4310-5627 0 X2 S5 550 7.5 7841-5263 55 X4 S4 625 N	6.3 4520–9137 10 X4 S5 700 6.3 4500–6087 0 78 SH S1 400 6.3 1C80–2A90 15 X10 S5 325 6.3 1C60–8050 11 X10 S5 500 6.3 1C30–4070 16 X4 S5 600 6.3 4310–7020 15 X4 S5 175	6.3 4500–6520 0 30 SH SI 400 2 6.3 4500–6520 0 50 SH SI 725 6.3 4510–2038 15 X10 S5 350 650 6.3 7210–5830 18 X10 S4 S5 650 653 4510–5672 10 X4 S5 475	6.3 4570–9860 10 X10 S5 379 6.3 4520–3010 13 X10 S5 300 6.3 4310–7025 14 X4 S5 200 6.3 4300–6527 0 30 SH S1 400 6.3 1097–A546 23 X2 S5 750 6.3 1670 202 23 X2 S5 750	6.3 7200–5309 14 X10 S5 250 6.3 7800–5030 0 40 SH S3 650 6.3 7200–5380 0 40 SH S3 400 X 6.3 4500–2090 0 52 SH S3 650	No Adapter Required3 1C85-7694 13 X1 S5 650 X1 .3 1C00-A3B2 0 78 SH S1 400 XI .3 4560-1230 10 X4 S5 500 1 .3 4590-8070 24 X4 S5 500 1 .3 4500-2090 0 57 SH S1 400 XI .3 4500-2090 0 57 SH S3 650 w .3 A500-2090 1 8 X4 S5 325 .3 3610-5780 18 X4 S5 500

D NOTATIONS	USE ADAPTER SA.4, 1050-144	Cap=P	l etrode Sect. Tricde Sect. SHORT ON 4. USE ADAPTER SA-4, 1050-144	Triode No. 1	Triode No. 2 Triode Sect.	Tetrode Sect.	Triode Sect. Grid No. 1	Triode No. 1	HOLD DOWN ST AND PRESS S5	Pent. Sect. Triode Sect.	USE ADAPTER SA-3, 1050-12/	Pent Sect	Triode Sect.	Triode No.1 Triode No.2	Cap = G	*Dual Iriode Triode No. 3	Connect a Pin No. 7.	HOLD DOWN ST AND PRESS SS		Triode No. 2	ress ss XDual Triode
MINIMUM MUT COND	850	725	550 425 650	575 300	175	650 525	425 300 775	350 275	375	200	575	575 475 400	675 625	200	700			375	625 650 700		
PRESS	S5 S1	SS	S5 S3	S5 S5	SS 22	S 23	SSS		83	SS	\$5 4	\$35 55 55	S5	S5	SS	S S S S	S6 Test	1 1	S S S	S5 S5	 S5
MULT	X4 SH	*XX	XXX XT0 SH	×× 4	××4.	SX TX	×××	**××	XX 10 10 10 10 10 10 10 10 10 10 10 10 10	××;	X10	XXX 500 500 500	×× 44 ×	×× 4	*XX	××°,	SH	X10	X X X	××;	X10
BIAS SHUNT	46 0 83 Beauired	46	12 0 5			000	1100	22 29		24	10	100	13	13				gle. 25	10 49	222	20
SELECTORS	7210-5080 4500-2090 No Adanter	7240-0130	4590-6780 4510-2030 4500-2790	4530-9170 4570-6030	4580-1090 4570-8060 4500-2130	8700-5030 4520-6370	4590-1080 4310-5627 4370-5621	4570–6080 4530–1090		4570-2361 4580-9010	3140-2080	AC40-2080 4520-7930 4570-9860	4520-3010 4310-5620	4570-6080 4520-1090	4530–9170 6100-2354	1097-A546 1080-2030	4510–9020 Vary stor from Plate j	ry beam an 4530-9120	6.3 4310–5627 10 6.3 7800–5030 0 6.3 4310–5627 10	4570-6080	7250–3480 4572–6183
E	6.3 A:	6.3	6.3	5.47.0 6.3 6.3	6.00	0.00			6.3	6.3	\sim	000	0.00	6.3	6.3	0 0 0 0	6.3 resis	to va 6.3	0 0 u	6.3	6.3
TUBE TYPE	6CK4 /6CL3‡ /Model 752		1	(MOdel 73)	6CM7 6CN7 6CN7	6004 6008	8008 6008 6008 6008	(6CS7 (6CS7 (6CS7	6CLJ5	(ecus	6CW4‡ Model 75	6CW4 6CW5	(6CX8 6CX8	/6CY7 /6CY7	6CZ5 6D6	(6D10‡	6DA5	(Vary Bias 6DB5	6DC6 6DE4 6DF6		
NOTATIONS	Cap=P X Dual Triode Pent, Sect.	FIOUG SECL. E Adapter SA-4, 1050-144	PENT, NO. 1. HOLD DOWNSTAND PRESS S5 PENT, NO. 2. HOLD DOWNSTAND PRESS S5 PENT, NO. 1	10.2	Sect. Diode No. 1	10.2	PRESSSS ect.	No. 1	7		No. 2	o. 3	900	sect.				de	ct. ct. 4, 1050-144	-4, 3200-144	SA-4, 1050-144
	Cap TDug Per	USE ADAPT	DOWNSTAN DOWNSTAN PENT. NO. 2 DOWNSTAN	Pent.	Yent. S XDual D Pent. P	Pent. N	Downstand Presss Pent. Sect.	Pent. N	F - 6::	Tetrode No	Tetrode No.	XDual Triode Triode No. 3	► Dual D	Pent. Sect. Triode No.	Triode N	<u> </u>	Oak)	XDual Triode	Fent. Sect. Triode Sect. USE ADAPTER SA-4, 1050-14	USE ADAPTER SA-4,	USE ADAPTER SA-4, 1050-144
MINIMUM MUT COND	350 Cap 400 X Dus 475 Per	- Si	175 PENT. NO. 1 175 PENT. NO. 2 175 PENT. NO. 2 400 Pent. N							√	-	200 XDual Triode 200 Triode No. 3	◀	Pent. S Triode	Triode Cap=P	ر د د	Jan		- E	400 USE ADAPTER SA	650 USE ADAPTER
MULT PRESS MUT COND		S3 400 ns	175	S3 400 S3 650	\$5 475 \$1 400 \$5 475	S5 600 S5 375	S5 475	350	S5 400	S5 675 AL	S5 700 T	200	S5 425 S5 375	S5 750 Pent. S S5 750 Triode	S5 700 Triode S5 425 Cap=P	S3 650 S4 376 Can-	S3 650 S5 700	S3 400 35 400 3	S5 350 TS3 650 W	USE	
BIAS SHUNT MULT PRESS MUT COND	S4 350 C S5 400 X D S5 475 F	60 SH S3 400 us	0 X2 175 0 X2 175 13 X4 S5 400	13 X4 S5 400 0 49 SH S3 650	12 X4 S5 475 0 78 SH S1 400 13 X10 S5 475	10 X10 S5 600 12 X2 S5 375	16 X2 150 10 X4 S5 475 0 78 SH S1 400	45 X4 S5 630 15 X2 S5 350	10 // SH S3 400	25 X2 S5 675 T6 X4 S5 700 7	16 X4 S5 700 7	14 X4 S5 200 14 X4 S5 200 0 49 SH S3 650	23 X10 S5 425 X10 S5 375	22 X4 S5 750 Pent. S 14 X4 S5 750 Triode	14 X4 S5 700 Triode 40 X10 S5 425 Cap=P	10 X4 S5 700 50 63 SH S3 650 20 X10 S4 376 Can-	0 65 SH S3 650 CAPT 10 X4 S5 700	23 X4 S5 400 X	15 X4 S5 725 T 15 X10 S5 350 T 0 66 SH S3 650 W	Required. 0 78 SH S3 400 USE	Required.
SHUNT MULT PRESS	X10 S4 350 C X10 S5 400 XC X4 S5 475 F	510-2030 10 X10 S5 525 1 500-2090 0 60 SH S3 400 ^{us} o Adapter Required.	0 X2 175 0 X2 175 13 X4 S5 400	13 X4 S5 400 0 49 SH S3 650	X4 S5 475 78 SH S1 400 X10 S5 475	10 X10 S5 600 12 X2 S5 375	16 X2 150 10 X4 S5 475 0 78 SH S1 400	X4 S5 630 X2 S5 350	10 // SH S3 400	25 X2 S5 675 T6 X4 S5 700 7	16 X4 S5 700 7	14 X4 S5 200 14 X4 S5 200 0 49 SH S3 650	23 X10 S5 425 X10 S5 375	22 X4 S5 750 Pent. S 14 X4 S5 750 Triode	14 X4 S5 700 Triode 40 X10 S5 425 Cap=P	10 X4 S5 700 50 63 SH S3 650 20 X10 S4 376 Can-	0 65 SH S3 650 CAPT 10 X4 S5 700	23 X4 S5 400 X	15 X4 S5 725 T 15 X10 S5 350 T 0 66 SH S3 650 W	Required. 0 78 SH S3 400 USE	0 83 SH S1 650 r Required.
BIAS SHUNT MULT PRESS	250-0480 28 X10 S4 350 C 572-6183 15 X10 S5 400 XC 590-6780 12 X4 S5 475 F	3 4510-2030 10 X10 S5 525 1 3 4500-2090 0 60 SH S3 400 ^{us} : No Adapter Required.	6.3 4570–8219 0 X2 175 6.3 4570–3216 0 X2 175 6.3 1770 408R 13 X4 S5 400	3 1000-4070 0 49 SH S3 650	3 4560–9870 12 X4 S5 475 3 4500–3120 0 78 SH S1 400 3 1CB0–89A7 13 X10 S5 475	3 1030-5426 10 X10 S5 600 3 4310-5627 12 X2 S5 375	3 4370–5621 16 X2 150 3 4510–7892 10 X4 S5 475 3 4500–6030 0 78 SH S1 400	3 1C80-BA90 45 X4 S5 630 3 1C30-7625 15 X2 S5 350	3 4310-5627 10 X4 S5 700	3 4360-1070 25 X2 S5 675 3 4570 0860 16 X4 S5 700 7	3 4510-32A0 16 X4 S5 700 7	1097-A546 14 X4 S5 200 1080-2030 14 X4 S5 200 4500-7130 0 42 SH S3 650	3 3420-7610 0 X10 S5 425 3 7250-3481 23 X10 S5 375	3 1080-BA97 22 X4 S5 750 Pent. S 3 1060-4050 14 X4 S5 750 Triode	3 1030-2070 14 X4 S5 700 Triode 5 7240-0130 40 X10 S5 425 Cap=P	3 1000-8070 5 63 SH S3 650 276 Can-	3 1000-4070 0 65 SH S3 650 37 4310-5620 10 X4 S5 700	3 1000-4070 0 78 SH S3 400 3 4572-6183 23 X4 S5 400 3	6.3 4510-2030 15 X10 S5 350 T 6.3 4510-2030 0 66 SH S3 650 W	Required. 0 78 SH S3 400 USE	6.3 4500-2090 0 83 SH S1 650 52A: No Adapter Required.

ONOL	NOTATIONS	Sect.	s Sect.	C	;	No. 1	5	Sect.		Triode	Sect. Diode	*Dual Triode Pent. Sect.	s Sect.	Triode	No. 1	1 2		Triode	B No. 3		GAS TEST	e No. 1		Pent Sect.	a oect.	TETRODE PLATE No. 1 Tetrode plate no. 2	Triode Sect	S	6 No. 1	
-	_	Pent. S	Triode Cap = G	Can - G	1 Cap .	Triode	Cap = G	Pent. Sect. Diode Sect.		IDual .	Pent.	*Dual Pent.	Triode	xDual .	Triode No.	Cap=F	2	*Dual	Triode No.		MAKE NO GAS TEST	Triode		Pent	0011	TETRODE	Triode	Triode	Triode	-
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Short	ATIONS	T CAP TO EXT. AS RES. JACKS 752A: CAP=K	I CAP TO EXT.	PTER SA-4, 1054-144 = K	ź	PTER SA-4,	SS.	N	٩	10LD DOWN \$1 5.5 5.5	S.S.	10 NO. 2 PTER SA-3, 1050-127				No. 1	Triod		PTER SA-4, 1050-144	Sect.		- 0. No.	. Sect. Je Sect.	_G	Je No. 1	Sect.	de Sect. Diode	Sect.	555	
SUCCESTOR	NOIAIIONS	CONNECT CAP TO EXT. SELF BIAS RES. JACKS MODEL 752A: CAP=K	CONNECT CAP TO EXT. SELF BIAS RES. JACKS	USE ADAPTER SA-4, $1054-144$	2	USE ADAPTER SA-4, 1050-144	SS.	N	Cap=P	CAP=P. HOLD DOWN \$1 AND PRESS \$5	S.S.	NO.				Grid No. 1	Triod		USE ADAPTER SA-4, 1050-144	Pent. Sect. Tfinde Sect.		Pent. No. 2	Pent. Sect. Triode Sect.	Cap=G	Triode No. 1	Pent. Sect.	Triode Sect.	Pent. Sect. Triode Sect.	Cap = G	
		OO SELF BIAS RES. JACKS MODEL 732A: CAP-K		USE ADAPTER SA-4, $1054-144$ CAD = K		USE ADAPTE 1050-144	Triode No.	I riode No.	Cap=P	CAP=P. HOLD DOWN AND PRESS S5	Triode No.		000	75 50	550	Grid	XDual Triod			25 Pent. Sect.	•	Pent.	Pent. S Triode				25 Triode Sect. 00 XDual Diode		Cap =	
MINIMUM	MUI COND		400 CONNECT CAP TO EXT. SELF BIAS RES. JACKS	USE ADAPTER SA-4, 1054.144	650	USE ADAPTE 1050-144	Triode No.	N	Cap=P	CAP=P. HOLD DOWN AND PRESS S5	S.S.		009	. 375 650	650 325	Grid	XDual Triod				•	Pent.	Pent. S Triode				525 Triode Sect. 400 XDual Diode		500 Cap = G 500 Cap = G	
MINIMUM	MUI COND	S3 400	S3 400 83 400	USE ADAPTER SA-4, 1054-144 $CAD = K$		Si 650 use adapte 1050-144	S5 625 Triode No.	S3 400 1 1 10 de 1 No.	S5 450 Cap=P	300 CAP=P. HOLD DOWN AND PRESS S5	S5 375 Triode No.	S4 600 S4 600	S4	SS 1	S 23	S5 375 Grid	S5 625 XDual Triod	S4 700	S3 650	S5 625 S5 625	\$4 500 500	S5 600 Pent.	S5 725 Pent. S S5 250 Triode	S1 500 S5 375	S5 575	S5 550	S5 525 S1 400	S5 625 S5 625	S1 500 Cap = S1 500 Cap =	S5 450
MINIMUM	MUI COND	S3 400	400 400 000	USE ADAPTER SA-4, $1054-144$ $Can = K$	650	Si 650 use adapte 1050-144	S5 625 Triode No.	475 riode No.	S5 450 Cap=P	300 CAP=P. HOLD DOWN AND PRESS S5	375 Triode No.	S4 600 S4 600	S4	SS 1		S5 375 Grid	S5 625 XDual Triod	S4 700	S3 650	S5 625 S5 625	\$4 500 500	S5 600 Pent.	S5 725 Pent. S S5 250 Triode	S1 500 S5 375	S5 575	S5 550	5 525	S5 625 S5 625	1 500 Cap = 1 500 Cap = 1	S5 450
MINIMUM	MUI COND	S3 400	S3 400 83 400	use Adapter SA-4, 1054-144 uired.	SH S3 650	SH SI 650 USE ADAPTE d. 1050-14	X2 S5 625 Triode No.	S3 400 1 1 10 de 1 No.	X4 S5 450 Cap=P	300 CAP=P. HOLD DOWN AND PRESS S5	S5 375 Triode No.	S4 600 S4 600	S4	SS 1	SH S3 X10 S5	S5 375 Grid	S5 625 XDual Triod	X10 S4 700	S3 650	X10 S5 625 X4 S5 625	\$4 500 500	S5 600 Pent.	S5 725 Pent. S S5 250 Triode	S1 500 S5 375	S5 575	S5 550	S5 525 S1 400	X10 S5 625 X2 S5 625	S1 500 Cap = S1 500 Cap =	S5 450
MUMINIM		78 SH S3 400	SH S3 400	0	49 SH S3 650	U 83 SH SI 650 USE ADAPTE Required.	24 X2 S5 625 Triode No.	22 Alu S3 475 Irlode No.	65 X4 S5 450 Cap=P	36 X10 300 CAP-P. HOLD DOWN 14 XA S.F. 200	13 X2 S5 375 Triode No.	95 X4 85 850 9 X10 S4 600	9 X10 S4	14 X10 S5 0 83 SH S1	0 68 SH S3	12 X1 S5 375 Grid	14 X4 S5 625 XDual Triod	13 X10 S4 700	0 55 SH S3 650 Required.	10 X10 S5 625	12 X10 S4 500	10 X10 S5 600 Pent.	25 X4 S5 725 Pent. S 17 X2 S5 250 Triode	0 50 SH S1 500 12 X10 S5 375	10 X2 S5 575	9 X4 S5 550	10 X10 S5 525 0 71 SH S1 400	0 X10 S5 625	SH S1 500 Cap = SH S1 500 Cap =	X10 S5 450
MUNINIM POPULATION OF THE PROPERTY OF THE PROP	BIAS SHUNI MULI PRESS MUI COND	0 78 SH S3 400	10 X10 S5 400 0 78 SH S3 400	Required.	0 49 SH S3 650	U 83 SH SI 650 USE ADAPTE Required.	24 X2 S5 625 Triode No.	22 Alu S3 475 Irlode No.	65 X4 S5 450 Cap=P	36 X10 300 CAP-P. HOLD DOWN 14 XA S.F. 200	13 X2 S5 375 Triode No.	95 X4 85 850 9 X10 S4 600	9 X10 S4	14 X10 S5 0 83 SH S1	0 68 SH S3	12 X1 S5 375 Grid	14 X4 S5 625 XDual Triod	13 X10 S4 700	0 55 SH S3 650 Required.	10 X10 S5 625	12 X10 S4 500	10 X10 S5 600 Pent.	25 X4 S5 725 Pent. S 17 X2 S5 250 Triode	0 50 SH S1 500 12 X10 S5 375	10 X2 S5 575	9 X4 S5 550	10 X10 S5 525 0 71 SH S1 400	0 X10 S5 625	0 65 SH S1 500 Cap = 0 50 SH S1 500 Cap =	13 X10 S5 450
MUNINIM POPULATION OF THE PROPERTY OF THE PROP	SHUNI MULT PRESS MUT COND	500-2000 0 78 SH S3 400	310–5627 10 X10 S5 400 500-2000 0 78 SH S3 400	Required.	0 49 SH S3 650	U 83 SH SI 650 USE ADAPTE Required.	24 X2 S5 625 Triode No.	22 Alu S3 475 Irlode No.	65 X4 S5 450 Cap=P	36 X10 300 CAP-P. HOLD DOWN 14 XA S.F. 200	13 X2 S5 375 Triode No.	95 X4 85 850 9 X10 S4 600	9 X10 S4	14 X10 S5 0 83 SH S1	0 68 SH S3	12 X1 S5 375 Grid	14 X4 S5 625 XDual Triod	13 X10 S4 700	0 55 SH S3 650 Required.	10 X10 S5 625	12 X10 S4 500	10 X10 S5 600 Pent.	25 X4 S5 725 Pent. S 17 X2 S5 250 Triode	0 50 SH S1 500 12 X10 S5 375	10 X2 S5 575	9 X4 S5 550	10 X10 S5 525 0 71 SH S1 400	0 X10 S5 625	0 65 SH S1 500 Cap = 0 50 SH S1 500 Cap =	-7610 13 X10 S5 450
MINIMUM THIRD SAID SAID SAID SAID SAID SAID SAID SAI	BIAS SHUNI MULI PRESS MUI COND	3 4500-2000 0 78 SH S3 400	10 X10 S5 400 0 78 SH S3 400	A: No Adapter Required.	6.3 7800-5030 0 49 SH S3 650	6.3 4500-2090 U 83 SM SI 650 USE ADAPTE A: No Adapter Required.	6.3 7840-5060 24 X2 S5 625 Triode No.	7810-2030 22 A10 S5 475 Triode No. 1000-4070 0 78 SH S3 400	7210-0430 65 X4 S5 450 Cap=P	7250-0480 36 X10 300 CAP=P. HOLD DOWN	4570-6080 13 X2 S5 375 Triode No.	6.3 3140-2080 9 X10 S4 600	6.3 AC40-2080 9 X10 S4	4310–5620 14 X10 S5 1000–4070 0 83 SH S1	7800-5030 0 68 SH S3 4530-9170 22 X10 S5	4310–5627 12 X1 S5 375 Grid	4572-6183 14 X4 S5 625 XDual Triod	ACC0-1070 13 X10 S4 700	6.3 4500-2090 0 55 SH S3 6 50 A: No Adapter Reguired.	6.3 4580-6970 10 X10 S5 625 6.3 4510-2030 12 X4 S5 625	3420-1050 12 X10 S4 500	7215–5480 10 X10 S5 600 Pent. 7215–3480 10 X10 S5 600 Pent.	4530–6720 25 X4 S5 725 Pent. S 4510–9080 17 X2 S5 250 Triode	1000-6050 0 50 SH S1 500 4310-5620 12 X10 S5 375	7840-5060 10 X2 S5 575	7810-2030 53 X10 55 400 4520-6370 9 X4 S5 550	4590–1080 10 X10 S5 525 4300–2751 0 71 SH S1 400	4570–9860 0 X10 S5 625	-6059 0 65 SH S1 500 Cap = -6050 0 50 SH S1 500 Cap =	4320-7610 13 X10 S5 450
MINIMUM TURNS THE THREE	SELECTURS BIAS SHUNI MULT PRESS MUT GOND	6.3 4500-2000 0 78 SH S3 400	3 4500-2000 0 78 SH S3 400	752A: No Adapter Required.	6.3 7800-5030 0 49 SH S3 650	6.3 4500-2090 U 83 SH SI 650 USE ADAPTE 752A: No Adapter Required.	6.3 7840–5060 24 X2 S5 625 Triode No.	7810-2030 22 A10 S5 475 Triode No. 1000-4070 0 78 SH S3 400	6.3 7210-0430 65 X4 S5 450 Cap=P	6.3 7250-0480 36 X10 300 CAR=P. HOLD DOWN	6.3 4570-6080 13 X2 S5 375 Triode No.	6.3 3140-2080 9 X10 S4 600	6.3 AC40-2080 9 X10 S4	6.3 4310–5620 14 X10 S5 6.3 1000–4070 0 83 SH S1	6.3 7800-5030 0 68 SH S3 6.3 4530-9170 22 X10 S5	6.3 4310–5627 12 X1 S5 375 Grid 6.3 4370–5621 8 X1 S5 300 Grid	6.3 4572-6183 14 X4 S5 625 XDual Triod	6.3 AC60-1070 13 X10 S4 700	6.3 4500-2090 0 55 SH S3 650 752A: No Adapter Required,	6.3 4580-6970 10 X10 S5 625 6.3 4510-2030 12 X4 S5 625	6.3 3420-1050 12 X10 S4 500	6.3 7215–6480 10 X10 S5 600 Pent.	6.3 4530-6720 25 X4 S5 725 Pent. S 6.3 4510-9080 17 X2 S5 250 Triode	6.3 1000-6050 0 50 SH S1 500 6.3 4310-5620 12 X10 S5 375	6.3 7840-5060 10 X2 S5 575	6.3 4520-6370 9 X4 S5 550	6.3 4590–1080 10 X10 S5 525 6.3 4300–2751 0 71 SH S1 400	6.3 4570–9860 0 X10 S5 625	6.3 1000-6059 0 65 SH S1 500 Cap = 6.3 1000-6050 0 50 SH S1 500 Cap =	. 6.3 4320-7610 13 X10 S5 450

NOTATIONS	CAP-P. HOLD DOWN SI AND PRESS SS Pent. Sect.	Sect.	Triode Sect. CAP-P. HOLD DOWN SI AND PRESS SS.	No. 2	So.		Sect.	CAP-P. USE ADAPTER SA-8, 1050-168 Pent. Sect.	Sect.	Sect.	Sect.	oect.	Sect. Sect.	Sect. Sect.	Sect.	Sect. Sect.	Sect. Sect.			
	CAP=P. HO AND PRESS Pent.	Pent.	Triode cap=p. HC si AND PR	Triode	Triode		Pent. Sect. Triode Sect.	USE ADAPT	Triode	Pent. Sect. Triode Sect.	Pent. Sect.	Cap = P	Pent. Sect. Triode Sect.	Pent. Sect. Triode Sect.	Pent. Sect.	Pent. Sect. Diode Sect.	Pent. Sect. Triode Sect.			
MINIMUM MUT COND	450	325 575 450	600	375	400 750 475	400 625 625	575 300	350	600 400	525	200	200	475 500 550	350	350 525 525	375 400 920	625 500 400	475 625 450	375 500 500	000
PRESS		800 00																		
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SHUNT				76	11			10 6			1 1 %		- 10.0		n – m	3 79		111		•
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SELECTORS	2750-0480 4580-6370	3410-5627 4520-6710	4590-8010 1C50-07A0 3410-5627	4500–6070 5430–9080	5410-2000 4320-7610 4310-5076	4520-7613 1CB0-72A0 4520-7819	4520-6710 4590-8010	4520-0798 4530-6720	4510-9080 1CB0-79A0	4520-6710 4590-8030	1090-5880 1090-5880	1090-0BA0	4570-9860 4520-3010 3410-5620	4520-8930 4560-7030	4520-6710 4590-8030	4520-6319 4500-8070 4310-5020	4520-7930 4520-6370 4590-1080	4310-5076 4520-7819 4310-5076	3410-5672 4310-5672 1020-7043 4310-5672	00000
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TUBE TYPE	9W99 9CW8	6GX6 6GX6 6GX7	\6GX7 6GY5‡	6GY8 6GY8 6GY8	(6GY8 6GZ5 6HA5	6HA6 6HB5‡	(6HB7 (6HB7	6H-B25 /6HC8	(6HC8 6HD5‡	(6HD7 (6HD7	6HE7‡	6HF5‡	6HF8 6HF8 6HG5	6HG8 6HG8 6HG8	tchus 2(H9)	(6HJ8 (6HJ8 6HK5	6HL5 (6HL8 (6HL8	6HM5 6HM5 6HQ5	6HR6 6HS5‡	_
											-									
NOTATIONS	Triode Sect. XDual Diode	XDual Triode	Pent. Sect.	Triode Sect.	Triode No. 2 Pent. Sect.	Triode Sect. Pent. No. 1 Pent. No. 2	Pent. Sect. Diode Sect. cap-p. Use adapter	SA-8, 1050-168 HOLD DOWN SI AND PRESS SS	Pent. Sect.	TRIODE NO. 1	Triode No. 2	Pent. Sect.	CAP-P. HOLD DOWN SI AND PRESS S5 USE ADAPTER SA-4, 1050-144	Pent. Sect. Triode Sect.	Triode Sect.	Triode No. 1 Triode No. 2	Pent. Sect.	Triode Sect. Xplobes No. 1 AND No. 2 Diode No. 3	HOLD DOWN STAND PRESSS USE ADAPTER SA-4, 1650-144	Cap = P
	Triode X Dual D					475 Triode Sect. 650 Pent. No. 1 150 Pent. No. 2				625 TRIDDE NO. 1		625 Pent. Sect.				Triode No. Triode No.		450 Triode Sect. 400 Zeiodes No. 1 AND No. 2 400 Diode No. 3	•	200
MINIMUM MUT COND	S5 175 Triode S1 400 X Dual D	S5 750 S5 400	S5 375 S5 550	S5 450 S5 325	S5 475 S5 275	S5 475 S5 650 S5 150	S3 400	375	300 650		450		450	5 475 5 550 5 625	5 550	Triode No. Triode No.	5 500 5 575 5 500	5 450 1 400 x	•	320
MULT PRESS MUT COND	S5 175 Triode S1 400 X Dual D	S5 750 S5 400	S5 375 S5 550	S5 450 S5 325	S5 475 S5 275	5 475 5 650 5 150	S3 400	375	300 650	S5 625 S5 050	450	S5 625 S5 525	450	S5 475 S5 550	S5 550 S5 750	\$5 575 \$5 450 Triode No. \$5 625 Triode No.	S5 500 S5 575 S5 500	5 450 1 400 x	S5 650	S5 350
MULT PRESS MUT COND	S5 175 Triode S1 400 X Dual D	S5 750 S5 400	S5 375 S5 550	S5 450 S5 325	S5 475 S5 275	S5 475 S5 650 S5 150	43 SH S3 400	X10 375 X10 375	X10 S5 300 X2 S5 650 X4 SE 550	X2 S5 625	X10 S5 450 xired.	X4 S5 625 X10 S5 525	X10 450 uired.	X10 S5 475 X10 S5 550 X4 SF 625	X10 S5 550 X10 S5 750	X10 S5 575 Triode No. X10 S5 625 Triode No.	X10 S5 500 X10 S5 575 X10 S5 575	80 SH S1 400 X	ired. X20 S5 650 x X4 S5 400 ▼	S5 350
MINIMUM MUT COND	15 X4 S5 175 Triode 0 78 SH S1 400 X Dual D 14 X10 S5 650	14 X10 S5 750 23 X4 S5 400 10 X10 S5 600	14 X10 S5 375 10 X4 S5 550	15 X10 S5 450 50 X10 S5 325 21 X2 S5 225	59 X4 S5 475 32 X10 S5 275	21 X2 S5 475 39 X4 S5 650 20 X2 S5 150	49 X4 S5 700 0 43 SH S3 400	25 X10 375	50 X10 S5 300 15 X2 S5 650 68 X4 SE 550	59 X4 S5 625 250 X7 X7 S5 625	64 X10 S5 450 Required.	11 X4 S5 625	31 X10 450 Required.	10 X10 S5 475 29 X10 S5 550 10 X4 SF 625	10 X10 S5 550 14 X10 S5 750	10 X10 S5 575 15 X1 S5 450 Triode No. 60 X10 S5 625 Triode No.	10 X10 S5 500 10 X10 S5 575 15 X10 S5 500	16 X2 S5 450 0 80 SH S1 400 X	Required. X20 S5 650 33 X4 S5 400 T	48 X10 S5 350
SHUNT MULT PRESS MUT COND	15 X4 S5 175 Triode 0 78 SH S1 400 X Dual D 14 X10 S5 650	14 X10 S5 750 23 X4 S5 400 10 X10 S5 600	14 X10 S5 375 10 X4 S5 550	15 X10 S5 450 50 X10 S5 325 21 X2 S5 225	59 X4 S5 475 32 X10 S5 275	21 X2 S5 475 39 X4 S5 650 20 X2 S5 150	49 X4 S5 700 0 43 SH S3 400	25 X10 375	50 X10 S5 300 15 X2 S5 650 68 X4 SE 550	59 X4 S5 625 250 X7 X7 S5 625	64 X10 S5 450 Required.	11 X4 S5 625	31 X10 450 Required.	10 X10 S5 475 29 X10 S5 550 10 X4 SF 625	10 X10 S5 550 14 X10 S5 750	10 X10 S5 575 15 X1 S5 450 Triode No. 60 X10 S5 625 Triode No.	10 X10 S5 500 10 X10 S5 575 15 X10 S5 500	16 X2 S5 450 0 80 SH S1 400 X	Required. X20 S5 650 33 X4 S5 400 T	C90-0BA0 48 X10 S5 350
BIAS SHUNT MULT PRESS MUT COND	3 4580–9070 15 X4 S5 175 Triode 3 4500–6213 0 78 SH S1 400 X Dual D 3 4320–5070 14 X10 S5 650	3 4320-5076 14 X10 S5 750 3 4320-5076 14 X40 S5 400 3 4310 5670 10 X40 SE 600	3 4310–5672 14 X10 S5 375 3 4590–6780 10 X4 S5 550	3 4510-2030 15 X10 S5 450 3 2710-5830 50 X10 S5 325 3 1CA0-8090 21 X2 S5 225	3 1030-5070 59 X4 S5 475 3 4530-6720 32 X10 S5 275	3 4510–9080 21 X2 S5 475 3 1080-BA90 39 X4 S5 650 3 1030-6724 20 X2 S5 150	3 1040-7350 49 X4 S5 700 3 1000-8080 0 43 SH S3 400	3 4560-9170 25 X10 375	3 4580-9170 15 X2 S5 650	3 1CBO-72A0 59 X4 S5 625 3 4590-8010 20 X2 S5 25	3 4520-6030 64 X10 S5 450 No Adapter Required.	6.3 4520-6370 11 X4 S5 625 6.3 4590-1080 13 X10 S5 525	3 4560-0730 31 X10 450 No Adapter Required.	3 5420-6710 10 X10 S5 475 3 5490-8030 29 X10 S5 550 3 4500-6370 10 X4 S5 625	3 4590-1080 10 X10 S5 550 3 3420-5076 14 X10 S5 750	3 4520–7813 10 X10 S5 575 3 7840-5060 15 X1 S5 450 Triode No. 3 7810-2030 60 X10 S5 625 Triode No.	4560-9170 10 X10 S5 500 4310-5627 10 X10 S5 575 4570-9860 15 X10 S5 500	80 SH S1 400 X	No Adapter Required. 8 4310-5620 9 X20 S5 650 8 4572-6183 33 X4 S5 400 T	1090-08A0 48 X10 S5 350

D NOTATIONS	Triode No. 1 Triode No. 2 Pent. Sect. Triode Sect.	Cap = P Pent. Sect. Triode Sect. Pent. Sect. Diode Sect.	USE ADAPTER SA-4, 1050-144 Cap = P USE ADAPTER SA-4, 1050-144	Pent. Sect. Triode Sect. USE ADAPTER SA-4, 1050-144	Epope No. 2 kno. 4 Pent. Sect. Triode Sect.	Pent. Sect. Triode Sect. Pent. Sect. Triode Sect. Cap = P	Fent. Sect. Triode Sect. Triode No. 1 XDual Triode	Pent. Sect. Triode Sect. Cap = P Pent. Sect. Triode Sect.	Pent. Sect. Triode Sect. Pent. No. 1 Pent. No. 2	FAN SELL NUMBERS SE. Diode Sect. CAP-P USE ADAPTER SA-4, 1050-144
MINIMUM MUT COND	625 300 350 500 700	350 350 375 450 600	575 600 275	550 250 575	325 450 450 450	775 550 500 625			550 475 225 225	900 350
MULT PRESS	X20 S5 X20 S5 X10 S5 X10 S5 X40 S5	X10 S5 X10 S5 X10 S5 X4 S5 X4 S5		0		XXXX 44 710 710 85 85 85 85 85 85 85 85 85 85 85 85 85		XXXXX X4 X2 X4 X5 X5 S5 S5 S5 S5 S5 S5 S5		XX XX X4 S3 S4 S5
BIAS SHUNT N		255	uired.	uired.	92		34			5 33 57 72 88 88 88 88 88 88 88 88 88 88 88 88 88
FIL SELECTORS BI	3410-5627 4570-6089 4520-1039 3410-5627 4570-9860 4520-3010	6.3 1C50-032A 4 6.3 1C80-7324 4 6.3 4590-6780 6 6.3 4510-2030 6 6.3 4570-1396 6	3.3 4520-9136 3.10 Adapter I 3.3 1050-0324 3.3 4520-9736 3.3 No Adapter I	.3 4570–9860 .3 4520–3010 .3 4520-0138 . No Adapter R	.3 4500-7853 .3 4500-1728 .3 1080-732A .3 4570-9860 .3 4520-3010	3 4520-6370 3 4590-1080 3 4570-9860 3 4520-3010 3 1050-0324	1C70-4890 1CA0-2080 7250-3480 1C90-A048		4520-6370 4590-1080 4570-8219 4570-3216	3 4520-7631 3 4500-8030 3 4520-0738 No Adapter
TUBE TYPE		SONS SONS SONS SONS SONS SONS SONS SONS	Ř6‡ odel 752/ S6A‡ T6‡ odel 752/	1 752		61W8 61W8 61Y8 61Z6 61Z6 61Z6				6KL8 6KL8 6KM6 6KM6 6KM6 6.
D NOTATIONS	Soc Pe	ctal socket. Pent. Sect. Triode Sect.	XDual Triode XTriodes No. 1&2 Triode No. 3 Pent. No. 1 Pent. No. 2	Pent. No. 2 Pent. No. 2 (cap-p. Hold Down (si And Press ss	(use Adapter sa.4, 1030-144 Pent, Sect. Triode Sect.	Pent. Sect. Triode Sect.	CAPP, HOLD DWN SI AND PRESS 28 USE ADAPTER SA-4, 1050-144 Pent. Sect. Triode Sect.	SI AND PRESS SS (USE ADAPTER SS.4. 1050-144 DENT SETE CAP-P. HOLD DOWN SI AND PRESS SS DIOCHE SOCT.	HOLD DOWNSTAND PRESSS USE ADAPTER SA-4, 1850-144	PLATE OF CONTROL PLASH (IN SHORT TESTING) PLATE OF CONTROL PLASH (IN SHORT TESTING)
	325 Pent. No. 325 Pent. No. 500 750 700 700 700 500 700 700 700 500 700 7	7 on octa 500 450 500 550 350	325 XDual Triode 750 XTriodes No. 1 750 Triode No. 3 500 Pent. No. 1 375 Pent. No. 2	800 375 625 450				325 Pont ser and press ss 325 Pent ser; Cap-P. Hold 625 Diode Sect.	H SS	400 PLATE NO. 1. (IN SHORT TESTING PLATE NO. 2. 400 PLATE NO. 2. (IN SHORT TESTING 500
MULT PRESS MUT COND	X1 S5 325 Pent. No. X1 S5 325 Pent. No. X10 S5 500 SH S1 750 X2 S5 700 From Pin 8 of octal socket	S5 Fin 7 on octa S5 500 S5 450 S5 500 F S5 350 T	35 325 XDual Triode 750 XTriodes No. 1 55 750 Triode No. 3 55 500 Pent. No. 1 55 375 Pent. No. 2	85 800 85 375 85 625 450	S5 325 S5 350 S5 750	\$22 \$22 \$22 \$22 \$23 \$23 \$23 \$23 \$23 \$23		325 33 625 53 625 500	S5 500 US S5 375	
	10 — X1 S5 325 Pent. No. 10 — X1 S5 325 Pent. No. 10 — X10 S5 500 Pent. No. 0 78 SH S1 750 700 Pin 8 of octal socket	connect P.in 1 to Pin 7 on octa 0 X20 S5 500 10 X2 S5 450 12 X10 S5 500 F 15 X4 S5 550 T 15 X20 S5 350	5 X4 S5 750 XTriodes No.15 X4 S5 750 Triodes No.15 X4 S5 750 Triode No.37 Pent. No. 2 275 Pent. No. 2	X10 S5 625 X10 450	Tuired. X2 S5 325 X4 S5 350 X4 S5 750	X10 S5 625 X4 S5 600 X10 S5 500 X20 S5 500 X10 S5 550	X10 575 uired. X10 S5 470 X4 S5 625	uired. X10 550 46 SH S3 625 X10 S5 500	uired. X10 550 us X20 S5 500 X10 S5 375	\$5 400 \$5 400 \$5 500
SHUNT MULT PRESS MUT COND	10 X1 S5 325 Pent. No. 10 X1 S5 325 Pent. No. 10 X10 S5 500 Pent. No. 0 78 SH S1 750 14 X2 S5 700 Sonnection from Pin 8 of octal socket	d connect Pin 1 to Pin 7 on octa 0 X20 S5 500 10 X2 S5 450 12 X10 S5 500 F 15 X4 S5 550 T 15 X20 S5 350	17 X10 S5 325 XDual Triode 15 X4 S5 750 XTriodes No.1 15 X4 S5 750 Triode No.3 0 X1 S5 500 Pent. No.1 20 X10 S5 375 Pent. No.2	12 X4 S5 800 35 X10 S5 375 47 X2 S5 625 31 X10 450	26 X2 S5 325 23 X4 S5 350 29 X4 S5 750	10 X10 S5 625 10 X4 S5 600 10 X10 S5 500 0 X20 S5 500 11 X10 S5 550	42 X10 575 Required. 15 X10 S5 470 14 X4 S5 625	36 X10 325 36 X10 325 0 46 SH S3 625 15 X10 S5 500	36 X10 550 We use Required. X20 S5 500 12 X10 S5 375	16 — X1 S5 400 16 — X1 S5 400 0 — X20 S5 500
BLAS SHUNT MULT PRESS MUT COND	10 X1 S5 325 Pent. No. 10 X1 S5 325 Pent. No. 10 X10 S5 500 Pent. No. 0 78 SH S1 750 14 X2 S5 700 Sonnection from Pin 8 of octal socket	1020–7043 0 X20 S5 500 1020–7043 0 X20 S5 500 3410–5627 10 X2 S5 450 4570–9860 12 X10 S5 550 F 4520–3010 15 X4 S5 550 T 4310–7020 15 X20 S5 350	17 X10 S5 325 XDual Triode 15 X4 S5 750 XTriodes No.1 15 X4 S5 750 Triode No.3 0 X1 S5 500 Pent. No.1 20 X10 S5 375 Pent. No.2	6.3 1C90-6AB0 35 X10 S5 625 6.3 4520-0138 31 X10 450	No Adapter Required.	4520-7819 10 X10 S5 625 4520-6370 10 X4 S5 600 4580-9010 10 X10 S5 500 1C20-7043 0 X20 S5 500 4520-7819 11 X10 S5 550	75 X10 575 r Required. 15 X10 S5 470 14 X4 S5 625	3 7150-0460 36 X10 550 3 7150-0460 36 X10 325 3 7100-8020 0 46 SH S3 625 3 4570-9860 15 X10 S5 500	3 4520-9736 36 X10 550 WG: No Adapter Required.	1 16 — X1 S5 400 1 16 — X1 S5 400 3 0 — X20 S5 500

D NOTATIONS	CAP-P. HOLD DOWN SI AND PRESS 55 USE ADAPTER SA-4, 1050-144	Fent. Sect. Triode Sect. Cap = P	PENT. SECT. USE ADAPTER SA-4, 1050-144 Triode Sect.	Pent. Sect. XDual Diode	Pent. Sect.	Cap = P	Pent. Sect. Triode Sect.	Check Only. CAP-P. SHORT ON 1-2-3-4 HOLD DOWN ST	Cap = K Pent Sect	XDual Triode Cap = G	Cap = P Pent. Sedet.	Triode Sect. CAP-P USE ADAPTER SA-4, 1050-144	TTRIODES NO. 1 & NO. 2 USE ADAPTER SA-4, 1050-144 Triode No. 3	CAP-P. HOLD DOWN ST AND PRESS S5. USE	Plate No. 1	Pent. Sect.	Pent. Sect. Triode Sect.	Cap=P Triode No. 1	XDual Triode PENT. NO. 1. HOLD DOWN SI AND PRESS S5	PENT, NO. 2. HOLD DOWN STAND PRESS S5	Triode No. 3	▼Dual Triode
MINIMUM MUT COND	575	425 500 2500	350 350	450	350	475 900	450	Short 650			900	525 900	575	575	250	750	325 525			175		650
MULT PRESS N		X20 S5 X10 S5 X4 S5	X10 S5 X4 S5	X10 S5 SH S1				Setting For SH	တ ဟ	တတ	X4 S5 X10 S5	တတ	X4 S5 X4 S5	X10			X10 S5			; <i>U</i> .	X10 S5 85 85 85	ဟ
BIAS SHUNT	<u>cc</u>	115	21	_	40		21		10 65		75	Ц	27	r Required.		34		75		15	21 22	51
SELECTORS	_				1060-4890			8200-0000 8200-0030	8200-3000	1085-7694 3800-6074	1050-0324 4590-6780	4510-2030 4520-0738	-				4520-6370 4590-1080		, ,		1080	_
본	6.3 752A:	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	6.3 6.3 75.2 A ·	. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	0 0 0 0 0	0 0 0 0 0	6.3	0FF 6.3	6.3 82 6.3 82	0.00	6.3	6.3		52	770	0 0 0 0 0 0	0.00	6.3	6.3	6.3	0 0 0 0 0 0	6.3
TUBE TYPE		(6LQ8 (6LQ8 6LR6‡			6LU6 (6LU8‡	6LW6 6LW6	(6LY8 (6LY8	6M3 6M3	6M3 6M11	(6M11 6MA6	6MB6‡	6MB8 6MC6‡	(6MD8‡	Model 7 6ME6‡		6MF8 6MF8 6MF8	6MG8 6MG8	\$MH6 \$MJ8	8/W9) (6MK8	(6MK8	6ML8 6ML8 6MN8‡	(6MN8
																	-					
NOTATIONS	TETRODE PLATE NO. 1 HOLD DOWN SI AND FRESS SI TETRODE PLATE NO. 2	HOLD DOWN SI AND PRESS SS. TETRODE PLATE NO. 3 HOLD DOWN SI AND	Diode Sect.	Pent. Sect. Triode Sect.	QUADRATURE GRID	Pent. Sect. Triode Sect.	Pent. Sect. Diode No. 1	USE ADAPTER SA-4, 1050-144	Pent. Sect. Triode Sect.	Dual Triode	PENT. SECT. USE ADAPTER SA-4, 1050-144 Triode Sect.	Pent. Sect. Triode Sect.	Cap = P	Fent. Sect. Triode Sect. Cap = G	Pent. Sect. Triode Sect.	Pent. No. 1	Pent, No. 2 Cap = P	Triode Sect.	Cap = G Cap = G	Pent. Sect.	Pent. Sect. Triode Sect.	Pent. Sect. Triode Sect.
	650 (TETRODE PLATE NO. 1 (HOLD DOWN ST AND (PRESS SS.			475 Pent. Sect. 500 Triode Sect. 500 LIMITER GRID						200 XDual Triode 475	USE ADAPTER Triode			550 Fent. Sect. 350 Triode Sect. 500 Cap=G		Pent.	Cap =	Triode Can P		1	Pent. 9	Pent. S Triode
MINIMUM MUT COND			500		525 750	450 475	400 400 400	1 092 .		5 200 3 5 475	5 325 Pent. Sect. 5 200 Triode S	5 625	5 300		5 625 5 625	5 840 5 450 Pent.	5 450 Pent. 5 750 Cap= 775 Dent	5 500 Triode	1 500	5 625	5 550 Pent. 8 5 450 Triode	5 625 5 675
MINIMUM MUT COND		650	S1 400 S5 500	475 500 500	S5 525 S5 750	S5 450 S5 475	S1 S1 S1 S1 S1 S1 S1 S1 S1 S1 S1 S1 S1 S	S5 760	S5 425 S5 550	S5 200 NO S5 475	5 325 Pent. Sect. 5 200 Triode S	S5 625 S5 400	S5 300 S4 750	5 350 1 500	S5 625 S5 625	S5 840 S5 450 Pent.	S5 450 Fent. S5 750 Cap =	S5 500 Triode	S1 500	S5 625 F	S5 550 Pent. S S5 450 Triode	S5 625 S5 675
MULT PRESS MUT COND	650	650	S1 400 S5 500	S5 475 S5 500 S5 500	S5 525 S5 750	S5 450 S5 475	S1 S1 S1 S1 S1 S1 S1 S1 S1 S1 S1 S1 S1 S	X4 S5 760 u	X20 S5 425 X4 S5 550	S5 200 N	X10 S5 325 PENT. SECT. X4 S5 200 Triode S	uired. X4 S5 625 X10 S5 400	S5 300 S4 750	S5 350 S1 500	S5 625 S5 625	S5 840 S5 450 Pent.	S5 450 Fent. S5 750 Cap =	S5 500 Triode	S1 500	X10 S5 625 F	S5 550 Pent. S S5 450 Triode	S5 625 S5 675
MINIMUM MUT COND	5 X1 650	5 X1 650	0 36 SH S1 400 68 X4 S5 500	14 X10 S5 475 11 X10 S5 500 0 X1 S5 500	9 X10 S5 525 9 X10 S5 750	10 X10 S5 450 20 X2 S5 475	0 30 SH S1 400	65 X4 S5 760 u	15 X20 S5 425 15 X4 S5 550	14 X4 S5 200 X	42 X10 S5 325 PENT. SECT. 18 X4 S5 200 Triode S	Required. X4 S5 625 14 X10 S5 400	17 X10 S5 300 33 X10 S4 750	16 X10 S5 550 17 X10 S5 350 0 50 SH S1 500	14 X2 S5 625 19 X2 S5 625	13 X10 S5 840 Y12 X2 S5 450 Pent.	77 X4 S5 750 Cap=	16 X4 S5 500 Triode 72 X10 S5 420 Can P	0 50 SH S1 500	10 X10 S5 625 F	15 X4 S5 550 Pent. S 17 X10 S5 450 Triode	12 X4 S5 625 26 X4 S5 675
SHUNT MULT PRESS MUT COND	X1 650	5 X1 650	500-3060 0 36 SH S1 400 C50-0324 68 X4 S5 500	X10 S5 475 X10 S5 500 X1 S5 500	360-7512 0 X1 S5 525 520-7819 9 X10 S5 750	10 X10 S5 450 20 X2 S5 475	5/0-9860 15 X10 S5 600 5500-3010 0 30 SH S1 400	520-9736 65 X4 S5 760 u	570-9860 15 X20 S5 425 520-3010 15 X4 S5 550	14 X4 S5 200 X	42 X10 S5 325 PENT. SECT. 18 X4 S5 200 Triode S	Required. X4 S5 625 14 X10 S5 400	17 X10 S5 300 33 X10 S4 750	16 X10 S5 550 17 X10 S5 350 0 50 SH S1 500	14 X2 S5 625 19 X2 S5 625	13 X10 S5 840 Y12 X2 S5 450 Pent.	77 X4 S5 750 Cap=	16 X4 S5 500 Triode 72 X10 S5 420 Can P	0 50 SH S1 500	10 X10 S5 625 F	15 X4 S5 550 Pent. S 17 X10 S5 450 Triode	12 X4 S5 625 26 X4 S5 675
BIAS SHUNT MULT PRESS MUT COND	5 X1 650	4570-1860 5 X1 650	3 4500-3060 0 36 SH S1 400 3 1050-0324 68 X4 S5 500	570-9860 14 X10 S5 475 520-3010 11 X10 S5 500 320-7516 0 X1 S5 500	3 4360-7512 0 X1 S5 525 3 4520-7819 9 X10 S5 750	3 4570-9860 10 X10 S5 450 3 4520-3010 20 X2 S5 475	3 45/0-9860 15 X10 S5 600 3 4500-3010 0 30 SH S1 400 3 4500-3010 0 30 SH S1 400	3 4520-9736 65 X4 S5 760 u	3 4520-3010 15 X20 S5 425 3 4520-3010 15 X4 S5 550	3 4591-7382 14 X4 S5 200 3 3 4520-7813 13 X20 S5 475	6.3 4520-6730 42 X10 S5 325 PENT SECT. 6.3 4590-8010 18 X4 S5 200 Triode S	No Adapter Required. 3 4520-6730 14 X4 S5 625 3 4590-1080 18 X10 S5 400	3 7250-3481 17 X10 S5 300 3 1050-0324 33 X10 S4 750	3 45/0-9860 16 X10 S5 550 3 4520-3010 17 X10 S5 350 3 2700-5601 0 50 SH S1 500	3 4520-1030 19 X2 S5 625 3 4520-1030 19 X2 S5	3 4520-7819 13 X10 S5 840 3 4590-6837 12 X2 S5 450 Pent.	3 4590-1832 12 X2 S5 450 Fent. 3 1C50-0324 77 X4 S5 750 Cap =	3 4520-3010 16 X4 S5 500 Triode	2700-5061 0 50 SH S1 500	4590-6780 10 X10 S5 625 F	3 4520-6370 15 X4 S5 550 Pent. S 4590-1080 17 X10 S5 450 Triode	3 4520-6371 12 X4 S5 625 3 4590-1086 26 X4 S5 675

). 2			D 625 NO. 1		
NOUS	No. 1 No. 2 No. 2 Triode	Sect.	Sect. No. 1 No. 2 No. 7	Sect.	No. 2 Sect.	No. 3 Sect. Sect. Sect.	Sect.	Sect.	Sect. Sect. Jiode Industrite. PENT.	No. 2 Sect. Triode No. 2	anou
NOTATIONS	Plate N Plate N Pent. N Pent. N XDual T	Pent. S	Pent. Sect. Diode No. 1 Diode No. 2 Triodc No. 1	FT LINE	Pent. No. 2 Pent. Sect. Triode Sect.	Triode No. 3 Pent. Sect. Triode Sect. Triode Sect. Set Triode Sect.	Pent. Sect. Triode Sect. Pent. No. 1 Pent. No. 1	Friode Pent. 9	Triode Sect. XDual Diode Set "the ADUST" TO N 1500 SCALE PENT. TO Pent. No. 2	Pent. Pent. S Pent. S Pent. S Pent. N	Juai
MINIMUM MUT COND											
MINI	650 650 500 375 675	64848	4 4 4 9	33 65	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	750 750 475 250 600	375 425 425 325 325	375 375 500 400	44 664	625 625 700 700 700 700 700 700 700 700 700 70	f
PRESS	\$55 \$55 \$55 \$55 \$55 \$55 \$55 \$55 \$55 \$55									N S S S S S S S S S S S S S S S S S S S	
MULT	XX2 XX2 XX2 XX2 XX3	*XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	* XXX	×××;	22222 22222	××××	XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXX 50040004	+ <
SHUNT	08 30		87				2		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		•
BIAS		23 13 13 13				23 24 4 4 7 7 7 7				. w w 0 5 5 5 5 6 6	62
SELECTORS	5040 3040 4685 9230 6183	7250–3480 4520-8930 4560-7030 4520-7813 4520-7813	8487 3040 2030 A040	L/B-5263 1CB0-2A94 1C50-7060	2364 -9860 -3010	1097-A546 1080-2030 4570-9863 4520-3019 1053-6472	9860 3010 6387	1090-8040 4570-9860 4520-3010 1080-7948	5426 5426	8987 2364 4980 7352 8987 2364	2010
SELEC	1600-1 2100-1 1070-1 1080-9 4572-1	7250- 4520- 4560- 4520- 4520-	10001	1080- 1050-	4570-4570-4570-	1097- 1080- 4570- 4520- 1053-	4570-0 4520-0 1040-0	4570-4520-1080-1080-	4580-7090 4500-6132 1C70-898A 1C30-5426	1050-2364 1050-2364 1064-7352 1064-7352 1050-2364	1016
邑	6.3 6.3 7.5 7.5	7.5	7.5	7.5		7.5				77777	· ·
TYPE	shoole ss		+ 0	o ++ = +	+ - - - -	# 88 # #	44 ++ -	- ~ ~ + + +	- ++	++ ++ ++	
TUBE	625 625 6210 6210 7AU7 7DJ8	7EY6 7HG(7HG) 7KY6 7KY6	8 A C C C C C C C C C C C C C C C C C C	(8AC)	8AR11 8AU8 8AU8	8AV11 8AV11 8AW8A 8AW8A 8B10‡	(8BA8A (8BA8A (8BA11; (8BA11;	8BA11 8BH8 8BH8 8BM11	888 888 888 888 888 888 888 888 888 88	8880111 8880111 8880111 8881111 8681111	
			~ ~ ~								
			47 •	m t	•		DOWN	0.177.	70 .		
SNOLL	Sect. Sect. Sect. Sect. Sect. Sect.	Sect. Sect. No. 1 Triode	Triode Sect.	No. 3 Sect. Sect.	No. 2 Sect.	7. USE SA-11, 1050-177. 10. 1 AND 3 NO. 2 OD DIY.	K S S S S S S S S S S S S S S S S S S S	SA-11, 1050-177. S Sect. WN S1 AND	Diode Diode Open Closed Sect.	7. USE SA-11, 1050-177. SA-11, 1050-177. No. 2 No. 1	Diode
NOTATIONS	Pent. Sect. Triode Sect. Pent. Sect. Triode Sect. Pent. Sect. Triode Sect.	Pent. Sect. Triode Sect. Triode No. 1 Dual Triode	Dual Triode Triode Sect.	Diode No. 3 Pent. Sect. Triode Sect.	Pent. No. 1 Pent. No. 2 Pent. Sect. Triode Sect.	RENT. SECT. USE-177. Triode Sect. Triode No. 1 and 3 Triode No. 2 Triode No. 2	APP STORY ON 1-2-3-4 NUD PRESS 53 Cap = K HEPT. SECT. HOLD DOWN	SI AND PRESS SE. USE ADAPTER SA-11, 1660-177. Triode Sect. HOLD DOWN SI AND PRESS SS	Dual Diode Dual Diode Eyes Open Eyes Closed Pent. Sect.	Darrer ser. Use Darrer sa.11, 1850-177. Triode Sect. Fenr No. 1. Use Pent. No. 1 Pent. No. 1	Dual Diode
		H		•	,	ADAPTER SA-11, 105 TRIODES NO. 1 AND Triode No. Triode No. Check Only.	S∓₹O E	SAL TE	Manual Diode So X Dual Diode Eyes Open Eyes Closed Pent Sect.		X Dual
MINIMUM MUT COND	450 Pent. Sect. 600 Triode Sect. 460 Pent. Sect. 700 Pent. Sect. 700 Pent. Sect. 440 Triode Sect.	H			,	H 0	S∓₹O E	SAL TE	650 XDual Diode 650 XDual Diode Eyes Open 725 Pent. Sect.		X Dual
MINIMUM MUT COND	\$5 \$5 \$600 \$5 \$460 \$5 \$700 \$5 \$40	\$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5	\$5 700 \$5 400 \$5 175	S5 450 S5 200	S5 200 S5 475 S5 525	S5 375 S5 300 S5 625 X S5 175 ng For Short C	S3 650 (************************************	S5 650 78 83 650 78 84 84 84 84 84 84 84 84 84 84 84 84 84	S3 650 S6 S6	S5 375 S5 750 S5 650 S5 450 S5 750	S3 650 XDual
MULT PRESS MUT COND	5 600 55 600 57 700 57 700	\$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5	\$5 700 \$5 400 \$5 175	S5 450 S5 200	S5 200 S5 475 S5 525	X10 S5 375 X10 S5 300 X2 S5 625 X X2 S5 175 Setting For Short C	S3 650 (************************************	S5 650 78 83 650 78 84 84 84 84 84 84 84 84 84 84 84 84 84	S3 650 S6 S6	5 375 5 750 5 650 5 450 5 750 5 750	S3 650 XDual
SHUNT MULT PRESS MUT COND	\$5 \$5 \$600 \$5 \$460 \$5 \$700 \$5 \$40	\$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5	\$5 700 \$5 400 \$5 175	S5 450 S5 200	S5 200 S5 475 S5 525	X10 S5 375 X0 X10 S5 300 X2 S5 625 X X2 S5 175 X This Setting For Short C	S3 650 (************************************	X4 S5 650 7 SH S3 650 7 X10 375 FF	S3 650 S6 S6	X10 S5 750 X10 S5 750 X10 S5 650 X10 S5 450 X2 S5 575	S3 650 XDual
MULT PRESS MUT COND	10 X10 S5 450 10 X10 S5 600 15 X10 S5 460 15 X10 S5 440 15 X4 S5 700 15 X4 S5 440	21 X10 S5 350 21 X4 S5 350 25 X2 S5 675 14 X4 S5 200 ▼	23 X4 S5 700 23 X4 S5 700 16 X10 S4 400 15 X4 S5 175 20 X10 S4 400	0 78 SH SI 400 12 X10 S5 450 16 X X4 S5 200	20 X10 S5 375 15 X X2 S5 200 12 X4 S5 475 10 X10 S5 525	14 X10 S5 375 300 27 X2 S5 625 X 20	0 60 SH 650 (**) 0 60 SH S3 650 C 46 X4 S5 650 C 18 X4 S5 575	23 X4 S5 650 7 0 60 SH S3 650 7 25 X10 375 FF	100 100 SH SG 650 100 SH SG 650 100 SH SG 7255 150 SH SG	15 X10 S5 375 14 X4 S5 750 12 X10 S5 450 21 X10 S5 450 21 X4 S5 750 13 X4 S5 750 13 X2 S5 575	0 35 SH S3 650 XDual
BLAS SHUNT MULT PRESS MUT COND	6370 10 X10 S5 450 1080 10 X10 S5 600 6370 15 X10 S5 460 1080 15 X10 S5 440 9860 15 X4 S5 700 3010 15 X4 S5 440	4890 40 X10 S5 350 2080 21 X4 S5 350 X2 S5 675 X2 S5 675 X2 S6 675 X4 S5 200 ▼ 8030 28 X4 S5 625 ▼	5263 23 X4 S5 700 5263 23 X4 S5 400 1050 16 X10 S4 400 9076 15 X X4 S5 175	1078 0 78 SH SI 400 1078 0 78 SH SI 400 3A90 12 X10 S5 450 2050 16 X4 S5 220	3490 20 X10 S5 375 7625 15 X2 S5 200 6370 12 X4 S5 475 1080 10 X10 S5 525	7824 14 X10 S5 375 9010 30 X10 S5 300 4243 27 X2 S5 625 X 5060 20 X2 S5 175 0000 Use This Setting For Short C	2000 0 60 SH 650 (#2) 2000 0 60 SH S3 650 C 3400 46 X4 S5 650 2412 15 X1 S7 500 (#2)	A090 23 X4 S5 650 7 500 8	-6170 0 18 SH S3 650 -5381 0 20 SH S3 650 -4086 100 100 SH S6 -4386 100 100 SH S6 -2061 10 X4 S5 725 -2061 10	15 X10 S5 375 14 X4 S5 750 12 X10 S5 450 21 X10 S5 450 21 X4 S5 750 13 X4 S5 750 13 X2 S5 575	240 0 35 SH S3 650 X Dual
SHUNT MULT PRESS MUT COND	X10 S5 450 X10 S5 600 X10 S5 460 X10 S5 440 X4 S5 700 X4 S5 700	C60-4890 40 X10 S5 350 CA0-20B0 21 X4 S5 350 C90-A048 25 X2 S5 675 C78-5263 14 X4 S5 200 ▼ 510-8030 28 X4 S5 625	5263 23 X4 S5 700 5263 23 X4 S5 400 1050 16 X10 S4 400 9076 15 X X4 S5 175	500–6273 0 78 SH SI 400 500–1078 0 78 SH SI 400 C80-BA90 12 X10 S5 450 C40-2050 16 X4 S5 200	-8490 20 X10 55 375 -7625 15 X2 S5 200 -6370 12 X4 S5 475 -1080 10 X10 S5 525	7824 14 X10 S5 375 9010 30 X10 S5 300 4243 27 X2 S5 625 X 5060 20 X2 S5 175 0000 Use This Setting For Short C	-0020 0 60 SH 650 (#1) -2000 0 60 SH S3 650 C -3400 46 X4 S5 650 -3481 18 X4 S5 575 -2412 15 X1	A090 23 X4 S5 650 7 500 8	100 100 SH SG 650 100 SH SG 650 100 SH SG 7255 150 SH SG	A970 16 X10 S5 375 750 A970 12 X10 S5 650 A970 16 X10 S5 650 A930 21 X4 S5 750 A970 12 X10 S5 450 A970 12 X4 S5 750 7625 13 X2 S5 575	240 0 35 SH S3 650 X Dual
BLAS SHUNT MULT PRESS MUT COND	520-6370 10 X10 S5 450 590-1080 10 X10 S5 600 520-6370 15 X10 S5 460 590-1080 15 X10 S5 440 570-9860 15 X4 S5 700 520-3010 15 X4 S5 440	3 1C60-4890 40 X10 S5 350 3 1CA0-2080 21 X4 S5 350 3 1C90-A048 25 X2 S5 675 3 1C78-5263 14 X4 S5 200 ▼ 3 4510-8030 28 X4 S5 625	3 4560–9020 21 X4 S5 700 3 7841–5263 23 X4 S5 400 3 4320–1050 16 X10 S4 400 3 4580–9076 15 X10 S5 175	3 4500–6273 0 78 SH SI 400 3 4500–1078 0 78 SH SI 400 3 1080-BA90 12 X10 S5 450 3 1040-2050 16 X4 S5 200	3 1080-8890 20 X10 S5 375 3 1030-7625 15 X2 S5 200 3 4520-6370 12 X4 S5 475 3 4590-1080 10 X10 S5 525	3 5630-7824 14 X10 S5 375 3 56A0-9010 30 X10 S5 300 3 1C9B-A243 27 X2 S5 625 X 3 1C70-5060 20 X2 S5 175 F 4500-0000 Use This Setting For Short C	6.3 4500-0020 0 60 SH 650 (%) 6.3 4500-2000 0 60 SH S3 650 C 6.3 7850-3400 46 X4 S5 650 6.3 7250-3481 18 X4 S5 575 6.3 5630-7412 15 X1	3 5680-4090 23 X4 S5 650 7 3 7800-5030 0 60 SH S3 650 7 3 7250-3480 25 X10 375 H	3 4500-6170 0 18 SH S3 650 SH S3 2753-4086 100 100 SH S6	15 X10 S5 375 14 X4 S5 750 12 X10 S5 450 21 X10 S5 450 21 X4 S5 750 13 X4 S5 750 13 X2 S5 575	3 5100-3240 0 35 SH S3 650 XDual
SELECTORS BLAS SHUNT MULT PRESS MUT COND	8 6.3 4520-6370 10 X10 S5 450 8 6.3 4590-1080 10 X10 S5 600 8 6.3 4590-1080 15 X10 S5 460 8 6.3 4570-9860 15 X4 S5 700 8 6.3 4520-3010 15 X4 S5 700	6.3 1C60-4890 40 X10 S5 350 6.3 1CA0-2080 21 X4 S5 350 6.3 1C90-A048 25 X2 S5 675 6.3 1C78-5263 14 X4 S5 200 ▼ 6.3 4510-8030 28 X4 S5 625	3 4560–9020 21 X4 S5 700 3 7841–5263 23 X4 S5 400 3 4320–1050 16 X10 S4 400 3 4580–9076 15 X10 S5 175	6.3 1040-2050 16 X10 S5 450 6.3 1040-2050 16 X4 S5 200	6.3 1C80-BA90 20 X10 S5 375 6.3 1C30-7625 15 X2 S5 200 6.3 4520-6370 12 X4 S5 475 6.3 4590-1080 10 X10 S5 525	5.3 5630-7824 14 X10 S5 375 5.3 56A0-9010 30 X10 S5 300 5.3 1C9B-A243 27 X2 S5 625 X 5.3 1C70-5060 20 X2 S5 175 FF 4500-0000 Use This Setting For Short C	6.3 4500-0020 0 60 SH 650 (#1 752A:	6.3 5680-A090 23 X4 S5 650 7 6.3 72800-5030 0 60 SH S3 650 7 6.3 7250-3480 25 X10 375 H	3 4500-6170 0 18 SH S3 650 SH S3 2753-4086 100 100 SH S6	6.3 5680-A970 16 X10 S5 375 650 6.3 5680-A970 16 X10 S5 650 650 6.3 5610-4320 12 X10 S5 450 650 6.3 1030-7625 13 X2 S5 575	3 5100-3240 0 35 SH S3 650 XDual

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MINEMON	MULT PRESS MUT COND NOTATIONS	X10 S5 475 Pent. Sect. X4 S5 625 Triode Sect. X20 S5 425 Pent. Sect.	S5 550 S5 425		S1 750 S5 500	X4 S5 825 Pent. Sect. X4 S5 650 Triode Sect.	S5 650 S5 450	S5 450 S5 450	S5 425 S5 250	S3 650	S5 400 X	S5 300 Pent.	Trioc	S5 625 S5 A75		S5 S1	S5 525	X4 S5 200 X Dual Triode SH S3 650 USE ADAPTER SALA, 1080-144		X4 S5 275 XDual Iriode X4 S5 625 XDual Triode	S5 500		S5 300 S3 650		
	BIAS SHUNT IN	15 21	! !	8 6 5 8 8 8	0 77 8		8 8 6 0 8 5 7 0	! !		4 5	2 !		30 30 10	! !	1 1	90	100	2 2	luired.	15	* *	0 E S S S S S S S S S S S S S S S S S S	10 0 0 58 8	Ø 8 8 9	30
	FIL SELECTORS E	0.0 4570–9860 0.0 4520–3010 0.0 4570–9860			2.6 4500-6870 2.6 4520-7813	4590-6780 4520-1030	5680-A970 5610-4320	1090-A040 107B-5263		4500-2000		1030-6724	-7020 -6527	4572-6183 4310-5672	4572-6183 7210-5830	6 4310-7025	.6 4572-6183 6 100 4070	12.6 4572–6183 12.6 4500–2090	lo Adapter	12.6 4572–6183 12.6 4572–6183		-	2.6 4310-5672 2.6 1000-A070	6 4370–5621 6 4310–6027	2.6 4310–7020 2.6 4300–6527
	TUBE TYPE F			(11LQ8 10 (11LT8 12	(11LT8 12		4 4	· ·	(12AE10‡ 12 (12AE10 12	752	++	- -	(12AT6 12 (12AT6 12		12AU7 12 12AV5 12		ą.	12AX7 12 (12AX7 12				(12BA7 12 (12BA7 12		7- 7-	946
	NOTATIONS	Pent. Sect. Triode Sect. Pent. Sect.	Diode No. 1 Diode No. 2	Pent. Sect. Triode Sect.	Pent. No. 1	Pent. Sect. Triode Sect.	Pent. Sect. Triode Sect.	Pent. Sect. Triode Sect.	Pent. No. 1 Pent. No. 2	Pent, No. 1 Pent, No. 2	EMISSION TEST BRID CONTROL & BAS TEST	should move	nall division.	kok Adapter	PENT. NO. 1. USE ADAPTER SA-11, 1050-177 Pent. No. 2	SET "LINE ADJUST" TO 825 PONT NO 9	PENT. NO. 1. SET "LINE ADJUST" TO 86 ON 200 SCALE	Pent. No. 2 Pent. Sect.	Triode No. 1	Pent. Sect. Triode No. 1	Triode No. 2	Triode No. 1	Triode No. 1	SET "LINE ADJUST" FO 86 ON 200 SCALE	Triode No. 1 Triode No. 2
MANAGEMENT	MUT COND	475 Pent. Sect. 500 Triode Sect. 600 Pent. Sect.		550 Pent. Sect. 350 Triode Sect.		600 Pent. Sect. 350 Triode Sect.		375 150	375	500 Pent. No. 1 375 Pent. No. 2	650	pointe	one small nter moves	Jse H	650 PENT. NO. 1. USE ADAPTER SA-11, 1050-177 450 Pent. No. 2			375 Pent. No. 2 475 Pent. Sect.					200 Triode No. 1		°°
MUNICIPALITY	MULT PRESS MUT COND		S1 400 S1 400	\$5 \$5 350	S5 840 S5 450 A50	S5 600 S5 350	S5 450 S5 400	S5 375 S5 150	S5 375 S5 200		SH S1 650 SH S6	eter pointe	ads one small pointer moves	is gassy. Use H	650	S5 525 S5 525	S5 350	375 475	S5 850 S5 750	S5 750 S5 750	S5 700 S5 825	S5 350 S5 400	S5 200	0 85 600	Triode No.
Mandana	MUT COND	X10 S5 475 500 X10 S5 500 X10 S5 600	30 SH S1 400 30 SH S1 400	\$5 \$5 350	X2 S5 450 X2 S5 450	X10 S5 600 X4 S5 350	X10 S5 450 X2 S5 400	S5 375 S5 150	S5 375 S5 200	X1 S5 500 X10 S5 375	# 0 SH S6	rotate bias dial. Meter pointe	antil meter reads one small S7. If meter pointer moves	tube is gassy. Use H	X10 S5 650 X10 S5 450	S5 525 S5 525	X10 S5 350	S5 375 S5 475	X4 S5 850 X4 S5 750	X4 S5 750 X4 S5 750	X4 S5 700 X10 S5 895	X10 S5 350 X10 S5 400	X4 S5 200 X4 S5 695	X10 S5 600	S5 225 Triode No. S5 475 Triode No. 0 S5 500
	SHUNT MULT PRESS MUT COND	570-9860 14 X10 S5 475 520-3010 11 X10 S5 500 570-9860 15 X10 S5 600	0 30 SH S1 400 0 30 SH S1 400	X10 S5 350	590-6837 12 X2 S5 450 590-1832 12 X2 S5 450	570-9860 15 X10 S5 600 520-3010 18 X4 S5 350	X10 S5 450 X2 S5 400	11 X10 S5 375 17 X4 S5 150	20 X10 S5 375 15 X2 S5 200	20 X10 S5 500	# 0 SH S6	S6 and rotate bias dial. Meter pointe scale if orid is operating	djust bias until meter reads one small 6 and press S7. If meter pointer moves	one divisio n, tube is gassy. Us e H 050-28	6 X10 S5 650 2 X10 S5 450	5 X10 S5 525 X10 S5 525	10 X10 S5 350	X20 S5 475	20 X4 S5 750	22 X4 S5 750 14 X4 S5 750	X4 S5 700 X10 S5 895	12 X10 S5 350 13 X10 S5 400	13 X4 S5 200 X4 S5 625	14 X10 S5 600	X2 S5 225 Triode No. X4 S5 475 Triode No. X20 S5 500
MUMBMUM	BLAS SHUNT MULT PRESS MUT COND	570-9860 14 X10 S5 475 520-3010 11 X10 S5 500 570-9860 15 X10 S5 600	10.0 4500-3010 0 30 SH S1 400 10.0 4500-2010 0 30 SH S1 400	4520-3010 17 X10 S5 550	10.0 4590-6837 12 X2 S5 450 10.0 4590-1832 12 X2 S5 450	10.0 4570-9860 15 X10 S5 600 10.0 4520-3010 18 X4 S5 350	4570-9860 21 X10 S5 450 4520-3010 17 X2 S5 400	570-9860 11 X10 S5 375 520-3010 17 X4 S5 150	1C80-BA90 20 X10 S5 375 1C30-7625 15 X2 S5 200	X1 S5 500 X10 S5 375	7230-5084 0 75 SH S1 650 7250-3084 # 0 SH S6	eter pointe	est: Adjust bias until meter reads one small down S6 and press S7. If meter pointer moves	ivision, tube is gassy. Use H	16 X10 S5 650 12 X10 S5 450	‡ 12.6 1CAO-89B7 5 X10 S5 525	1CA0-89B7 10 X10 S5 350	10 X10 S5 375 10 X20 S5 475	1030-7050 12 X4 S5 850 1030-9040 20 X4 S5 750	22 X4 S5 750 14 X4 S5 750	1030-2070 14 X4 S5 700	12 X10 S5 350 13 X10 S5 400	4570-6080 13 X4 S5 200	4310-5620 14 X10 S5 600	21 X2 S5 225 Triode No. 59 X4 S5 475 Triode No. 10 X20 S5 500

MOTATIONS	Triode No. 1 Pent. No. 1 Pent. No. 2 Cap=P Use Adayter sa-4, 1050-144 Triode Sect. Cap = P Use Adayter sa-4, 1050-144 Triode No. 3 Triode No. 1 Triode No. 1 Triode No. 1 Triode No. 1 Pent. No. 1	° N
MANAGATURA MAUT COND	250 250 300 300 450 450 450 450 450 450 450 450 450 4	0//
TUBE TYPE FIL SELECTORS BLAS SHUNT MULT PRESS I	12FQ8 12.6 4572-6190 10 X2 85 12FX 12.6 4320-7610 15 X10 S5 12G11 12.6 1320-7610 15 X10 S5 12G11 12.6 1320-7610 15 X10 S5 12G11 12.6 1320-7610 15 X10 S5 12G11 12.6 130-6724 20 X10 S5 12G11 12.6 130-6724 20 X10 S5 12G11 12.6 130-6724 20 X10 S5 12G12 12.6 130-6724 20 X10 S5 12G12 12.6 130-730 31 X10 X10 X20	12.6 4520-1090 55 A4
T COND NOTATIONS	Pent. No. 1 Pent. No. 2 Pent. No. 2 Limiter Grid SED Cap=P USE ADAPTER SA4, 1930-144 COD Pent. No. 1 Pent. No. 1 Pent. No. 2 CONNECT CAP TO EXT. SELF BAS RES. JACKS MODEL TSA-CAP-K MODEL TRIODE SELF BAS RES. JACKS MODEL TSA-CAP-K TO Grid No. 3 CAP-P HOLD DOWN SI CAP-P HOLD DOWN SI AND PRESS SS CAP-P ST AND PRESS SS C	
MENTAUM MUT COND	5 375 Per 475 XDu 650 Use 650 Use 650 Grid and 8375 AND 650 Grid and 8375	
MULT PRESS MUT COND	S5 375 Per S5 520 Per	
SHUNT MULT PRESS MUT COND	X10 S5 375 Pe X2 S5 200 Pe X11 S5 500 Li X10 S4 350 Ca X10 S4 350 Ca X10 S4 S5 500 Li X10 S5 500 Li	
BLAS SHUNT MULT PRESS MUT COND	28	
SHUNT MULT PRESS MUT COND	1030-7625 17	
BLAS SHUNT MULT PRESS MUT COND	28	

NOTATIONS	PENT, SECT. SET "LINE ADJUST" AT 725 ON 1500 SCALE	Triode Sect.	ADJUST" AT 700 ON 3050 SCALE. USE ADAPTER	Triode Sect.	Pent. Sect.	Triode No. 1	Pent No. 1	Pent. No. 2	Pent. Sect. Triode No. 1	Triode No. 2	Cap=P		Cap=P	Triode Sect.	Pent. Sect. Triode Sect.	PENT, NO.1 USE ADAPTER SA-11,1050-17 Dont NIO O	TETRODE NO. 1 USE ADAPTER SA-11,1050-17.	I etrode INO. Z LIMITER GRID	QUADRATURE GRID		USE ADAPTER SA-4, 1050-144		Pent. No. 1		Cap=P	USE ADAPLER SA-4, 1030-144		HOLD DOWN ST AND PRESS S5	Tetrode No. 1 Tetrode No. 2	USE ADAPTER SA-4, 1050-144
MUMIMUM MUT COND	750	750	300	350			625 350	375	440 390	430	800	625 325	300	350	350 350			375 500	525 700	650	650 650	650	375	650	650	400	650 400	475	700 700	650
PRESS	S5	S5	S	SS	\$5	S50	S S	S 5	S5 S5	SS	လို့သ	S S S	SS	SS	S5 S5	SS	S5	လူသ	SS	888	S3	S	SS	83	S5	23		3 :	S5 S5	S
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BIAS	34	21	39	16	35 35	17	30	99	16	<u> </u>	29	20 00	62	24	940	16	16	16	0 5	300	00	Requ	30	0			00	13 0	16	0 83 Required
SELECTORS	1070-4890	1CA0-20B0	4520-6730	4590-8010	1080-5970	1CA0-B070	1C30-2070	1050-2364	1C20-B3A0	1050-6040	4520-7813 1090-0BA0	1CB0-72A0 1CB0-732A	1050-03A4	1C60-4890 1CA0-20B0	1C60-4890	5680-A970	5690-78A0	5630-1240 1070-4685	1050-4687	1000-4070	8700-5030 4500-2090	No Adapter	1080-BA90	4500-2090	7250-0480	4500-2090 No Adapter	1000-A070	4320-7610	4570-9860 4510-32A0	4500-2090 No Adapter
2	12.6	12.6	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	2A:	17.0	17.0	17.0	- CI	17.0	17.0	17.0	17.0 752A:
TUBE TYPE	(15MF8‡	(15MF8	(15MX8‡	15MX8 17.	(16AK9†	16AK9	(16AK9	(16BQ11	(16BX11‡	(16BX11	16GK6 16GY5‡	16HB5‡	16KA6‡	116LU8Ţ	16MY8‡	(16 Y 9 ‡	(17AB9‡	(17AB9 (17AB101	17AB10	17AX3‡	17AX4 (17AY3 <u>†</u>	(Model 75	(17BF11‡	(17BH3‡	17B06		17BW3‡	17C5	(17C9‡ (17C9	ale ale
				_	_										_	_		_		_			-				_		_	_
D MOTATIONS	Triode No. 1 Triode No. 2	Triode No. 1	Triode No. 1	Triode No. 2	Triode No. 2	USE ADAPTER SA-4, 1050-144	1 11000 140° Z	Pent. No. 1	Pent. Sect.	Triode Sect.	Pent. No. 2	Pent. No. 2	Pent. Sect.	Triode No. 2	Pent. Sect. Triode No. 1	Triode No. 2 Triode Sect.	Triode Sect.	XDual Diode Pent. Sect.	Triode No. 1	Triode No. 2 PENT. SECT. SET "LINE	Triode No. 1	Triode No. 2 HOLD DOWN "LIFE TEST"	ADJUST" AT 80 ON 200 SCALE Triode No. 2	Triode No. 1	DE NO. 1. SET ST"AT 725 ON 15	SET "LINE ADJUST" TO 700 ON 1500 SCALE	S S S S S S S S S S S S S S S S S S S	SET "LINE ADJUST" TO	Use Adapter SA-4, 1650-144 Triode Sect.	PENT, NO. 1. SET "LINE ADJUST" TO 110 ON 200 SCALE Pent, No. 2
MUT COND	375 Triode No. 1 850 Triode No. 2						7 :001 ADOLL 1 OC+	500 Pent. No. 1	375 Fent. No. 2 300 Pent. Sect.	450 Triode Sect.	150 Pent. No. 2	375 Pent. No. 2	625 Pent. Sect.	450 Triode No. 2	500 Pent. Sect. 400 Triode No. 1	325 Triode No. 2 250 Triode Sect.	400 XDual Diode 475 Triode Sect.	400 XDual Diode	450 set "Line adjust" A7725 825 Triode No. 1	625 Triode No. 2	800 Triode No. 1	700 Triode No. 2 475 HOLD DOWN "LIFE TEST"	525 ADJUST AT 80 ON 200 SCALE 450 Triode No. 2	300 Triode No. 1 725 Triode No. 2	ADJU	SET "LINE ADJUST" 700 ON 1500 SCALE		300 SET "LINE ADJUST" TO	350 Triode Sect.	400 PENT NO.1. SET "LINE ADJUST" TO 110 ON 200 SCALE 400 Pent. No. 2
PRESS MUT COND		500	425 500	475 300	725	250	, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10	200	300	450	1000	37.5	921	450	50C 40C	32; 25(400 474	400	82.5 82.5 82.5	625	8	700 47.5	S5 525 ABJUST 478 00 2025ALE S5 450 Triode No. 2	300	225 TRIO	350 SET "LINE ADJUST"	200	300		
MULT PRESS MUT COND	375 850	S5 500	S5 425 S5 500	S5 475 S5 300	S5 725	250	000	S5 50(S5 300	S5 45(S5 150	S5 37!	S5 621	S5 45(S5 50(S5 40(32; 25(S1 400 S5 475	S1 400	S5 45(S5 62!	S5 80(S5 700 S5 475	S5 528 S5 450	S5 30(S5 225 Apju	S5 350 SET "LINE ADJUST" S5 350 No. 700 ON 1500 SCALE	200	300	350	400
MULT PRESS MUT COND	\$5 375 \$5 850	S5 500	S5 425 S5 500	S5 475 S5 300	S5 725	S5 250	C+ CC OIV .	X1 S5 50(S5 300	S5 45(S5 150	S5 37!	S5 621	S5 45(S5 50(S5 40(X10 S5 329 X2 S5 250	SH S1 400 X2 S5 475	S1 400	S5 45(S5 62!	S5 80(S5 700 S5 475	S5 528 S5 450	S5 30(S5 225 Apju	S5 350 SET "LINE ADJUST" S5 350 NO 1500 SCALE	S5 500	300	X2 S5 350	. X2 S5 400 X2 S5 400
PRESS MUT COND	\$5 375 \$5 850	13 X2 S5 500	60 X10 S5 425 15 X2 S5 500	60 X10 S5 475 20 X2 S5 300	61 X4 S5 725	20 X2 S5 250	zuired.	X1 S5 500	X10 S5 37.	X2 S5 450 X10 S5 300	X4 S5 150	X10 S5 37	X10 S5 622 X10 S5 372	X10 S5 450	X10 S5 500	X10 S5 329 X2 S5 250	78 SH S1 400 X2 S5 475	78 SH S1 400	X10 S5 450 X4 S5 828	X4 S5 62!	X4 S5 800	X4 S5 700 X10 S5 478	S5 528 S5 450	X2 S5 300 X4 S5 725	X2 S5 225 ADJU	S5 350 SET "LINE ADJUST" S5 350 NO 1500 SCALE	S5 500	300	X2 S5 350	S5 400 S5 400
SHUNT MULT PRESS MUT COND	13 X2 S5 375 55 X4 S5 850	13 X2 S5 500	60 X10 S5 425 15 X2 S5 500	X10 S5 475 X2 S5 300	61 X4 S5 725	20 X2 S5 250	Required.	0 X1 S5 500	20 X10 S5 37.8 34 X10 S5 30.8	32 X2 S5 450	26 X4 S5 150	20 X10 S5 37!	13 X10 S5 62;	18 X10 S5 450	10 X10 S5 50 13 X10 S5 40(X10 S5 32; X2 S5 25(0 78 SH S1 400 10 X2 S5 47?	0 78 SH S1 400	X10 S5 450 X4 S5 828	13 X4 S5 628	15 X4 S5 800	X4 S5 700 X10 S5 478	31 X2 S5 528 59 X10 S5 450	CAO-B090 20 X2 S5 300	0 20 X2 S5 225 April	0 55 X10 S5 475 I'1006 NO. 3 11 X20 S5 350 87 700 NI 350 854 E	7819 12 X20 S5 500	9 X10 S5 300	X2 S5 350	10 X2 S5 400 10 X2 S5 400
BLAS SHUNT MULT PRESS MUT COND	5080 13 X2 S5 375 1090 55 X4 S5 850	8740–5060 13 X2 S5 500	8710-2030 60 X10 S5 425 4570-6080 15 X2 S5 500	4520-1090 60 X10 S5 475 1CA0-B090 20 X2 S5 300	1080-5070 61 X4 S5 725	4590-8010 20 X2 S5 250	43ZV-6030 64 A10 33 430 No Adapter Required.	1C70-4685 0 X1 S5 500	1080-9230 20 X10 35 37. 1070-4890 34 X10 S5 300	1CA0-20B0 32 X2 S5 450	1030-7625 26 X4 S5 150	10.00-4685 U X10 S5 374	1080-2A80 13 X10 S5 629	1030-9040 18 X10 S5 450	1020-B340 10 X10 S5 500 1080-6050 13 X10 S5 400	1CA0-9070 14 X10 S5 329 4580-9070 10 X2 S5 250	4500–2631 0 78 SH S1 400 4580–9070 10 X2 S5 47?	4500-6213 0 78 SH S1 400	1080-2890 12 X10 S5 450 1060-8050 13 X4 S5 828	1030-4070 13 X4 S5 628	1060-2890 19 X10 39 430	1030-4070 18 X4 S5 700 4520-7930 30 X10 S5 478	4570-6080 31 X2 S5 528 4520-1090 59 X10 S5 450	1080-B090 20 X2 S5 300	1CAO-B090 20 X2 S5 225 April	1030-5070 55 X10 S5 475 I riode Ino. 4520-7613 11 X20 S5 350 ser 'tulke ablustration of the contract	4520-7819 12 X20 S5 500	520-6730 39 X10 S5 300	16 X2 S5 350	4590-6837 10 X2 S5 400 4590-1832 10 X2 S5 400

NOTATIONS		Triode Sect.	SA-8, 1050-168		Tetrode Sect.	Cap = K CONNECT CAP TO EXT.	MODEL 752. CAP=K	Pent. Sect.	Triode No. 3	WDIODES NO. 1 AND NO.	Diode No. 3	Pent. Sect.	Triode Sect. Pent. Sect.	Triode Sect.	Triode Sect.	Pent. Sect.	Pent. Sect.	Triode No. 1	XDual Triode	Cap = P CAP=P. HOLD DOWN STAND PRESS SS		Cap=P	Cap∈P	Cap = P CAP-P. USE ADAPTER SA-R. 1050-168	Cap = P
MINIMUM MUT COND			400 600 675	650					575			300	400 375		475			650 475	1)	625				420
MULT PRESS		S5 S1	S S S		SS	S3 S3	S1	SS	လွလ	S5	SS 23	SS	85 85	S5 S5	SS	လ က က		လူသူ		S5-	SS	S 25 5	SS	S 5	S2
MULT		SH	*	N C	*X 10 10	SH	SH	*** 10 10	222	XX.10	SH X10	*XX	X 22 10 10	××70	X10	××× ×××	X X X	XX2	X4 Re-test	X4 X10	×4×	XX 10 4	X 10 10	X10 X10	X10
SHUNT		32	! !	58	2	78	83	i		100	808 ::		; ;	: :	į		: :	: : :					1 1		
BIAS		0 12	£ 9 8	00	12	0 0	0	13	19	15	000	10	12	10	16	0 4	2012	34	14 shorts:		52	533	63	. 62 30	73
SELECTORS		4310-7020 4300-6520	4520-0780 4310-5672 4310-5620	7800-5030	4520-6370 4590-1080	1000-4000	1000-4070	4520-6370 4590-1080	4597-8600	4320-7610	4500-2010 4310-5672	4310-5672 4590-6780	4510-2030 4590-6780	4510-2030 4590-6780	4520-1030	4510-32A6	4570-9861 4520-3061	4570-6080 4520-1090	0.0 2185–7694 Tubes indicating	1C50-0324 1C50-07A0	1CB0-72A0 1CB0-79A0	1CB0-792A	1CB0-732A 1C50-0324	1C50-03A4 4520-0392	1C50-0B40
置		20.0	17.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0				20.0	20.0 Tube	20.0	20.0 20.0	20.0	20.0	20.0	20.0
TUBE TYPE		(18FY6 18FY6	18GB5 18GD6A 19AO5	19AU4 19CG3±	(19CL8A (19CL8A	19DE3‡ 19DK3‡	19DQ3‡				(19GÕ7 19HR6				C		19X8 19X8			LF6‡ GY5‡		HJ5‡ JS6A‡	21JV6‡ 21JZ6‡	KA6‡ KQ6	- G6‡
MOTATIONS	USE ADAPTER SA-4, 1050-144			CAP = P HOLD DOWN SI AND	PRESS S5 USE SA-4, 1050-144	HOLD DOWN S1 AND PRESS S5 CAP-P. HOLD DOWN	SI AND PRESS S5 USE ADAPTER SA-4, 1050-144	40LD DOWNSTAND PRESS S5 JSE ADAPTER SA-4, 1050-144	AP=P. HOLD DOWN 11 AND PRESS S5 AP=P. HOLD DOWN S1	AP=P	SE ADAPTER SA-8, 1050-161 AP-P. HOLD DOWN TAND PRESS S5 TE ADAPTER S8 4 1050 441	AP=P. HOLD DOWN	DAPTER SA-4, 1050-144 OLD DOWN STAND PRESSSS SE ADAPTER SA-4, 1050-144	Jap=P	Pent. Sect.	Diode Sect. RE ADAPTER SA-4, 1050-14	SE ADAPTER SA-4, 1050-144	ent. Sect.	FIOGE SECT. SE ADAPTER SA-4, 1050-141	NT. SECT. E ADAPTER SA-4, 1050-14(riode Sect.	Imiter Grid		S S	mpl. Sect. sc. Sect.
	650 USE ADAPTER SA-4, 1050-144	750 700	650 650	650 (CAP P P S AND	(PRESS S5 650 USE SA-4, 1050-144	550 HOLD DOWN ST AND PRESS SS A FO (GAP-P, HOLD DOWN		450 HOLD DOWN STAND PRESS SS USE ADAPTER SA-4, 1050-144	525 CAP-P. HOLD DOWN S1 AND PRESS S5 CAP-P. HOLD DOWN S1		450 USE ADAPTER SA-9, 1050-160 (CAP-P. HOLD DOWN ST AND PRESS SS	550 CAPEP. HOLD DOWN	550 HOLD DOWN STAND PRESS 59 USE ADAPTER SA-4, 1050-144		600 Pent. Sect.	400 Diode Sect. 575 USE ADAPTER SA-4, 1050-14	275 USE ADAPTER SA-4, 1850-144	725 Pent. Sect.	- IS	700 PENT. SECT. 4. 1050-14		Limiter G avadrature er	Pent No	S S	Ampl. Osc. S
		S3 750 S5 700		300				I >	525		450			350	320 900 900			<u></u> ← F	260		000	525 700 700	750 Fent. No. 715 Pent. No.	640 Pent. No. 375	300 Ampl. 400 Osc. S
	650 u	S S3		S3 650 300	650			I >	525	650	450			S5 350	S5 600	400 575	275	725 P	S5 760	700	0000	85 85 700 85 700	S5 750 Pent No. S5 715 Pent No.	640 Pent. No. 375	S5 300 Ampl. S5 400 Osc. S
	83 SH S1 650 u	Jired. 45 SH S3 74 S5	88 83 83 83	X10 300	55 SH S3 650 uired.	X10 550	000+ 017	X10 450 H	X10 525 X10 450	S3 650	X10 450	X10 550	X10 550	X10 S5 350	S5 600	SH S1 400 X2 S5 575	X10 S5 275	X4 S5 725 P	X4 S5 760	. X4 S5 700 X2 S5 450	d. V1 SF 500	85 85 700 85 700	S5 750 Pent No. S5 715 Pent No.	S5 640 Pent. No. S5 375	S5 300 Ampl. S5 400 Osc. S
BLAS SHUNT MULT PRESS MUT COND NOTATIONS	0 83 SH S1 650 u	Required. 0 45 SH S3 42 X4 S5	0 40 SH S3	36 X10 300	0 55 SH S3 650 r Beauired.	26 X10 550	Required.	31 X10 450 [#] Required.	X10 525 X10 450	40 SH S3 650	X10 450	36 X10 550	36 X10 550	48 X10 S5 350	55 X5 S5 600	0 70 SH S1 400 79 X2 S5 575	Hequired. X10 S5 275	35 X4 S5 725 P	65 X4 S5 760	X4 S5 700 X2 S5 450	uired. V1 SF 500	85 85 700 85 700	5 X4 S5 750 Fent No.	2 X1 S5 640 Pent. No. 4 X4 S5 375	X2 S5 300 Ampl X10 S5 400 Osc. 8
	0 83 SH S1 650 u	Jired. 45 SH S3 74 S5	0 40 SH S3	49 SH S3 650 X10 300	55 SH S3 650 uired.	26 X10 550	Required.	X10 450 H	X10 525	0 40 SH S3 650	31 X10 450	36 X10 550	36 X10 550	48 X10 S5 350	55 X5 S5 600	0 70 SH S1 400 79 X2 S5 575	Hequired. X10 S5 275	35 X4 S5 725 P	65 X4 S5 760	41 X4 S5 700 32 X2 S5 450	Required.	35 X4 S5 700	40 X4 S5 750 Fent No. 35 X2 S5 715 Pent No.	12 X1 S5 640 Pent. No. 14 X4 S5 375	12 X2 S5 300 Ampl. 18 X10 S5 400 Osc. S
BLAS SHUNT MULT PRESS MUT COND	4500-2090 0 83 SH S1 650 u	Required. 0 45 SH S3 42 X4 S5	7800–5030 0 40 SH S3 7800–5030 0 49 SH S3	7800-5030 0 49 SH S3 650 7250-0480 36 X10 3 00	4500-2090 0 55 SH S3 650 No Adapter Required.	1CB0-72A0 26 X10 550	No Adapter Required.	4560-9730 31 X10 450 W	1090-08A0 27 X10 525 2750-0480 31 X10 450	0 4500–3010 0 40 SH Si 650	4520-0138 31 X10 450	4520-0738 36 X10 550 No Adapter Required	4520-9736 36 36 3710 550	48 X10 S5 350	4570-1396 55 X5 S5 600	4520-9136 79 X2 S5 575	Mo Adapter Required. 4520-9736 47 X10 S5 275	X4 S5 725 P	4520-2536 65 X4 S5 760	4520-6730 41 X4 S5 700 4590-8010 32 X2 S5 450	No Adapter Required.	5 X4 S5 525 X4 S5 700	7210–5830 40 X4 S5 750 Fent No. 1080-BA90 35 X2 S5 715 Pent No.	1030-7625 12 X1 S5 640 Pent. No. 4310-5672 14 X4 S5 375	4310-5627 12 X2 S5 300 Ampl. 4310-6027 18 X10 S5 400 Osc. S

NOTATIONS	CAP=P. HOLD DOWN SI AND PRESS SS CAD=P		CAP=P USE ADAPTER SA-8, 1050-168	USE ADAPTER SA-8, 1050-168 Pent, Sect.	Diode Sect. Pent. Sect.	HOLD DOWN SI AND PRESS 53	Cap = P	Cap = P		Pent. No. 1 Pent. No. 2		CAP-P. USE ADAPTER SA-8, 1050-168	X DUAL TRIODE. SET "LINE ADJUST" TO 650 ON 1500 SCALE	XDual Diode	Cap = P	CAP=P. SET "LINE ADJUST" AT 41 ON 0 TO 100 SCALE	CONNECT CAP TO PIN 1 OF OCTAL SOCKET	Pent. Sect. Triode No. 1	Triode No. 2	CAP-P. HOLD DOWN SI AND PRESS S5	SET LINE ADJUST TO 786 ON 1500 SCALE	Pent. Sect. Diode Sect.	Pent. Sect. Diode Sect.	PENT, SECT. HOLD DOWN SI AND PRESS S5 Diode Sect.	PENT. SECT. HOLD DOWN SI AND PRESS SS Diode Sect.
MUT COND	750 550 625		350	350	400 425 200	375	650 450	900 475	900	525 525	400 400 004	575 750		400	300	750	800	790 750				400 400	275 750	450	450
PRESS		လ လ လ		S5 S5					SS						SSS				N CO				S2 S1	833	
MULT	XXXX	×××	X10	X X 5	XTO X10	X X X 2	N × ×	*X *X	×× 4 4	××	X X X X X X X X X X X X X X X X X X X	X X	X10	SHX	X 44 7	XX 4 X	HS	×× 4 4	×× 4 4			SH SH	STO ST	X10	X10 SH
SHUNT	45	0 0 0				8			: :	! !	1 1		i	78			99				daired 	43	78	76	·
BIAS		0 30 30		ניז ניז		25 25			4 75 4		3 11 0 52		4 11	2 A 53					0 28		_		0 73	0 34	(1)
SELECTORS	4500-2090 7250-0830 7250-0830	4320-7610 4320-7610 4320-7610	4520-0798	4570-9630 4570-1396	1070-6090	7250-3481	7210-0430	8710-032 8750-032	1050-0324 1050-0324	8170-5362 8120-4367	4520-7613 1CB0-79A0	4520-7813 4580-0392	1085-7694	1C00-A3B2	1050-0324	1050-0324	4500-9020	1C80-457	1030-2070	4520-073	4320-7610	1C40-7350 1C00-B080	1090-5B80 1000-2040	1CB0-5A80	1CA0-5B80 1C00-2040
2	25.0 25.0 25.0	25.0 25.0 25.0	25.0	25.0	25.0 25.0	25.0	25.0	25.0 25.0	25.0 25.0	25.0 25.0	25.0 25.0	25.0	35.0	35.0	35.0		25.0	35.0	35.0	35.0		35.0 35.0	35.0	35.0	35.0 35.0
TUBE TYPE	25CT3 25DN6 25EC6	25EH5 25F5 25F5A	25H-B25	25HX5 (25JQ6	(25JQ6 (25JZ8‡	25L6 25L6	26DQ5	26HU5 26LW6	26LX6‡ 27LF6‡	(28D7 (28D7	28HA6 28HD5‡	29GK6 29LE6	(30AG11‡	30HJ5t	30JZ6‡ 30KD6‡	30MB6‡	30R-K47	(31AL10‡	(31AL10	(31LQ6‡		(32GA7‡ (32GA7	(32HQ7‡ (32HQ7	(33GT7‡	(33GY7‡ (33GY7
و المنافعية الم					فاستانسن																				
MOTATIONS	ENT. SECT. ISE ADAPTER SA-4, 1050-1 Triode Sect.	Pent. Sect. Triode Sect.	ent. Sect. Friode Sect.	ET "LINE ADJUST" TO 50 ON 1500 SCALE ISE ADAPTER SA-4, 1050-144		AP=P. HOLD DOWN if AND PRESS S5 SE ADAPTER SA-4, 1050-144	IGLD DOWN STAND PRESS SS ISE ADAPTER SA-4, 1050-144	ISE ADAPTER SA-4,1050-144	AP=P. SE ADAPTER SA-4, 1050-144	AP=P. SE ADAPTER SA-4, 1050-14		Jap = P	Friode No. 1	ent. No. 1	ent. No. 2	ent. Sect. Diode Sect.	SE ADAPTER SA-4, 1050-144	ent. Sect.	APP PRESS SS AND PRESS SS READAPTER SA-4, 1850-144		<u> </u>	OLD DOWN ST AND LESS SS	iap≂P	E ADAPTER SA-4, 1058-144	10RT ON 4. SE ADAPTER SA-4, 1656-144
	350 PENT, SECT. 350 USE ADAPTER SA-4, 1950-1	350 Pent. Sect. 350 Triode Sect.	ァー	SE	650 650	USO (CAP=P. HOLD DOWN SI AND PRESS S5 (USE ADAPTER SA-4, 1050-144	550 HOLDDOWNSTANDPRESSSS USE ADAPTER SA-4, 1050-144	575 USE ADAPTER SA-4,1050-144	575 GAP-P. USE ADAPTER SA-4, 1050-144	350 CAP-P. USE ADAPTER SA-4, 1050-14	760 USE ADAPTER SA-4, 1050-1		Triode No.	450 Pent. No. 1		400 Diode Sect. 575 (cap-P. Hold Down			575 (GAP-P. HOLD DOWN SI AND PRESS SS USE ADAPTER SA4, 1650-144	350 650		HOLD	425 375 Cap≂P	USE	650 SHORT ON 4. USE ADAPTER SA-4, 1656-144
MINIMUM MUT COND N			350 T	650 (se		CA S1 US1	HOR	USE	CAP	CAP	USE	009	550 Triode No.	Pent. No. 1	27.5) V		575	350 650		475 HOLD	425 375 Cap	USE	
PRESS MUT COND N	350 ME	350	S5 350 T	S3 650 (sr	650	CA S1 US1	HOR	575 use	575 GAP- USE	350 CAP- USE	760 use	S5 600	S5 550 Triode No.	450 Pent. No. 1	S5 275	S3 400 575	OF AOF	S5 425 S5 500	575	350 650	S5 475 S4 350	475 PRES	425 375 Cap	S3 400 S1 650 use	650
MINIMUM MUT COND N	X10 S5 350 USE X4 S5 350 T	X10 S5 350 X4 S5 350 X10 SE	S5 350 T	52 SH S3 650 (SE uired.	S3 650 S3 650	X10 550 {cA S1 USI	X10 550 Hg	X2 S5 575 use	X2 S5 575 GAP	X4 S5 350 CAP	X4 S5 760 use	X4 S5 600	S5 550 Triode No.	S5 450 Pent. No. 1	S5 275	S3 400 575	X10 SE 40E	S5 425 S5 500	X10 575	S4 350 S3 650	X10 S5 475 X10 S4 350	475 PRES	X10 S4 375 Cap	SH S3 400 SH S1 650 use	SH S3 650
BLAS SHUNT MULT PRESS MUT COND N	40 X10 S5 350 WE 21 X4 S5 350 Tr Required.	21 X4 S5 350	21 X4 S5 350 T	0 52 SH S3 650 (SE Required.	0 49 SH S3 650 0 49 SH S3 650	36 X10 350 (sa Required.	36 X10 550 H0 Required.	79 X2 S5 575 use	79 X2 S5 575 GAP	72 X4 S5 350 CAP Beautified	65 X4 S5 760 use	68 X4 S5 600	20 X4 S5 550 Triode No.	30 X10 S5 450 Pent. No. 1	19 AZ S5 275 40 XA S6 700	0 43 SH S3 400 42 X10 575	Required, V10 SE 405	34 X2 S5 500	42 X10 575 Required.	28 X10 S4 350 0 40 SH S3 650	28 X10 S5 475 28 X10 S4 350	13 X10 475 PRES	29 X10 S4 375 Cap	0 /8 SH S3 400 0 83 SH S1 650 use	Required. 0 64 SH S3 650 Required.
SHUNT MULT PRESS MUT COND	X10 S5 350 USE X4 S5 350 T	21 X4 S5 350	21 X4 S5 350 T	r Required.	0 49 SH S3 650 0 49 SH S3 650	36 X10 550 {si	X10 550 Hg	79 X2 S5 575 use	79 X2 S5 575 GAP	72 X4 S5 350 CAP Beautified	65 X4 S5 760 use	68 X4 S5 600	20 X4 S5 550 Triode No.	X10 S5 450 Pent, No. 1	19 AZ S5 275 40 XA S6 700	43 SH S3 400 X10 X10	Required, Y10 SE 405	34 X2 S5 500	42 X10 575 Required.	28 X10 S4 350 0 40 SH S3 650	28 X10 S5 475 28 X10 S4 350	13 X10 475 PRES	29 X10 S4 375 Cap	0 /8 SH S3 400 0 83 SH S1 650 use	Adapter Required. 0-2790 0 64 SH S3 650 Adapter Required.
BLAS SHUNT MULT PRESS MUT COND N	40 X10 S5 350 WE 21 X4 S5 350 Tr Required.	1C60-4890 40 X10 S5 350 1CA0-2080 21 X4 S5 350 1C60-4890 40 X10 S5 350	1CA0-2080 21 X4 S5 350 T	4500-2090 0 52 SH S3 650 85 No Adapter Required.	1000-A070 0 49 SH S3 650 7800-5030 0 49 SH S3 650	4520-0738 36 X10 550 (sa No Adapter Required, loss	4520-9736 36 X10 550 HB No Adapter Required.	4520-9136 79 X2 S5 575 use	79 X2 S5 575 GAP.	No Adapter Required. X4 S5 350 CAP	20.0 4520-956 65 X4 S5 760 use 52.0 No Adapter Beautied	1050-0324 68 X4 S5 600	1000-0070 20 X4 S5 550 Triode No.	1080-8090 30 X10 S5 450 Pent. No. 1	1030-7020 19 AZ 350 275	0 43 SH S3 400 42 X10 575	No Adapter Required,	1CA0-2080 34 X2 S5 500	4520-0738 42 X10 575 No Adapter Required.	7210-5830 28 X10 S4 350 7800-5030 0 40 SH S3 650	4530–1860 0 X10 S5 475 7250–0480 28 X10 S4 350	4320-7610 13 X10 475 PRESS	3420-7610 0 X10 S5 425 7250-0830 29 X10 S4 375 Cap	1000-4070 0 78 SH S3 400 4500-2090 0 83 SH S1 650 use	r Required. 0 64 SH S3 650 r Required.

NOTATIONS	SET "LINE ADJUST" TO 825 ON 1500 SCALE	Plate No. 1 Plate No. 2 Plate No. 1 Plate No. 2	XDual Triode	REGULATION =14 VOLTS FROM 1 TO 40 MA.	REGULATION—5 VOLTS (FROM 5 TO 15 MA. Plate No. 1 Plate No. 2	Cap=G use hickok adapter code no. 1050-50 Cap=G	→85V. REGULATION-1.0 V FROM 5 TO 40 MA. (RIGHT CAP-P	USE HICKOK ADAPTER (SA-6 CODE NO. 1050-107 Left Cap=P	USE HICKOK ADAPTER SA-6 CODE NO. 1950-107 LOTE CAD=P	Cap=P Cap=P (*15 v.	FROM 10 TO 50 MA. STRIKES AT ABOUT 70 STRIKES AT ABOUT 78 UNE HICKOK ADAPTER	CODE No. 1050-118 4 87 V MAX. REGULATION = 9 VOLTS MAX. FROM 0.4 TO 2.0 MA. TUBE DOOP MAY = 47 V.	(+ 105 D. D. D. MAX. REGULATION = 8 VOLTS MAX. FROM Q. 4 TO 2.0 MA. TUBE DROP MIN. = 48 V. TUBE DROP MAX. = 67 V.	AMPL. SECT. HOLD DOWN SI AND PRESS SS OSC. Sect.	▼Dual Triode strikes at about 26	STRIKES AT ABOUT 26 Cap = P	TOP — P. CONNECT FIL. LEADS TO PINS 1 AND 2
MUT COND	475 400 400	400 400 650 650		> >		0 0 10			550 550	>	650	537	53V	475 475 750			
MULT PRESS		SSSSS SH H H SCH					o-jo-			SH S3 SH S3 VR †59	98 HS 98 HS	VR †S9	VR †59	X2 X2 X10 S5			
SHUNT		36 27 60 57	8 8 8	! !		28	! !			50	% 63 8 # # 83 8	*****	>	1 1 1	93	63	
SELECTORS BLAS	4320–7610 1 4520-7930 2 7250–3481 2	4100-3000 4100-2000 4100-3000 4100-2000	3—Top of Ch i3—Top of Ch 4572–6183	0000-5070	•	(1)	_		5762-0340 28 5126-0340 28		7250–3080 # 5130–2040 #	0908-0000	0FF 0000-6030	4370-5621 0 4310-5627 0 3460-7050 12	2378 5260 3086	7250-3086 # 2750-0300 45	0000
TUBE TYPE FIL	FX5 5 HL5 5	80 80 83 83 5.0 83 5.0	A2 3,088	90C1 OFF		286A 2.0 CAA322 6.3 328A 7.5			832A 6.3	836 4.3 866A 4.3 874 0FF	884 6.3 885 2.5	991 0FF	991 OFF	1217 6.3 1217 6.3 1218A 6.3			
MOTATIONS	Pent. Sect. Diode Sect. USE ADAPTER SA-4, 1950-144		SHORT ON 4. USE ADAPTER SA-4, 1050-14		Pent. Sect. Triode Sect.	Cap=P	Can = P	CAPER USE ADAPTER SA-4, 1050-144 PENT. SECT. SET "LINE	ADJUST"TO 600 OM ISOUSCALE Diode Sect. Pent. Sect.	Diode Sect. Cap=P	USE ADAPTER SAS 1050-168 CONNECT CAP TO EXT. SELF BIAS RES, JACKS (MODEL 752A_CAP-K AT 9C ON 201 CCAPIE AT 9C ON 201 CCAPIE AT 9C ON 201 CCAPIE	Pent. Sect. Triode Sect. Hold Down SI AND		PENT. SECT. HOLD DOWN SI AND PRESS 85 Diode Sect.	LD DO	Pent. Sect. Diode Sect. Pent Sect	iode
				300 300 450	325 475 Pent. Sect. 475 Triode Sect.	0			200 ADJUST"TOGOGOMISOGRAE 500 Diode Sect. 625 Pent. Sect.	400 Diode Sect. 600 Cap=P	350 CONNECT CAP TO EXT. SELF BLAS RES. JACKS. MODEL 72A.CAP-K ANDEL 72A.CAP-K AT SET VINE ADJUST"	625 Pent. Sect. 775 Triode Sect. 475 MID DOWN SI AND		750 Penr. Sect. Hold Down 450 SI AND PRESS SS 400 Diode Sect.	PRI	Pent. Diode	Diode
	D D	X10 S5 325 SH S3 650	X4 S5 700 SH S3 650	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	₽ 1	S4 300 S5 2500 C S3 650	S3 650 S3 650 S5 900	S5 900	S5 200 S1 500 S5 625		S3 350 S5 300	\$5 625 \$5 775 475	S3 650 S5 650 S5 400	450 400 650	475 PRE S5 625	S5 625 Pent. S1 400 Diode	S1 500 Diode
BIAS SHUNT MULT PRESS MUT COND NOTATIONS	X10 S5 200 Pe 65 SH S3 500 Di. X2 S5 575 use	4uired. X10 S5 325 650 65 SH S3 650 650 650 650 650 650 650 650 650 650	39 X4 S5 700 0 64 SH S3 650 Required.	710 S4 X10 S4 X10 S5	35 X10 S5 325 24 X4 S5 475 P 15 X4 S5 475 T	0 X10 S4 300 80 X4 S5 2500 C 0 50 SH S3 650	0 50 SH S3 650 0 49 SH S3 650 75 X4 S5 900 0	75 X4 S5 900 Required.	51 X10 S5 200 0 82 SH S1 500 60 X4 S5 625	0 88 SH S1 400 40 X4 S5 600 75 X4 S5 900	0 66 SH S3 350 64 X10 S5 300	X4 S5 625 775 X10 X10 475	54 SH S3 650 X10 S5 650 X10 S5 400	S3 400	X10	88 SH S1 400 Diode X10 SE 250 Pent.	85 SH S1 500 Diode
SHUNT MULT PRESS MUT COND	58 X10 S5 200 Pe 0 65 SH S3 500 Di 79 X2 S5 575 use	Required. X10 S5 325 0 650 650 650 650 650 650 650 650 650	39 X4 S5 700 0 64 SH S3 650 Required.	710 S4 X10 S4 X10 S5	35 X10 S5 325 24 X4 S5 475 P 15 X4 S5 475 T	0 X10 S4 300 80 X4 S5 2500 C 0 50 SH S3 650	0 50 SH S3 650 0 49 SH S3 650 75 X4 S5 900 0	75 X4 S5 900 Required.	51 X10 S5 200 0 82 SH S1 500 60 X4 S5 625	0 88 SH S1 400 40 X4 S5 600 75 X4 S5 900	0 66 SH S3 350 64 X10 S5 300	26 X4 S5 625 0 X2 S5 775 13 X10 475	0 54 SH S3 650 13 X10 S5 650 30 X10 S5 400	34 X4 S5 750 34 X10 450 0 76 SH S3 400 13 X10 S5 650	110 13 X10 475 Hu 330 21 X10 S5 625	880 60 X4 S5 625 Pent. 940 0 88 SH S1 400 Diode	00-2040 0 85 SH S1 500 Diode
BLAS SHUNT MULT PRESS MUT COND	35.0 1090-5B80 58 X10 S5 200 Pe 35.0 1000-2040 0 65 SH S3 500 Di 35.0 4520-9136 79 X2 S5 575 use	Required. X10 S5 325 0 650 0 65 SH S3 650	35.0 3420-7610 39 X4 S5 700 35.0 4500-2790 0 64 SH S3 650 35.1 No Adapter Required.	35.0 4310–5620 0 X10 S4 35.0 4320–7610 0 X10 S4 35.0 4320–7610 15 X10 S5	35.0 4320–7510 35 X10 S5 325 35.0 4590–7680 24 X4 S5 475 P 35.0 4510–3020 15 X4 S5 475 T	35.0 7250–3480 0 X10 S4 300 35.0 1050–0324 80 X4 S5 2500 C 35.0 4300–5070 0 50 SH S3 650	35.0 7200–5080 0 50 SH S3 650 35.0 4300–5070 0 49 SH S3 650 35.0 1050–0324 75 X4 S5 900 0	2A: No Adapter Required.	50.0 1090-5880 51 X10 S5 200 50.0 1000-2040 0 82 SH S1 500 35.0 1090-5880 60 X4 S5 625	1000-2040 0 88 SH S1 400 3420-7610 40 X4 S5 600 1050-0324 75 X4 S5 900	50.0 4500-7000 0 66 SH S3 350 52A: 50.0 1C50-0324 64 X10 S5 300	50.0 4530–6720 26 X4 S5 625 50.0 4510–9080 0 X2 S5 775 50.0 4320–7610 13 X10 475	4320–5070 6 54 SH S3 650 4320–7610 13 X10 S5 650 7250–3480 30 X10 S5 400	50.0 1CA0-5B80 34 X10 450 50.0 1C00-2040 0 76 SH S3 400 50.0 1C00-2540 13 X10 S5 650	50.0 4320-7510 13 X10 475 PRI 50.0 4520-7930 21 X10 S5 625	‡ 50.0 1090-5880 60 X4 S5 625 Pent. 50.0 1000-2040 0 88 SH S1 400 Diode	50.0 1000-2040 0 85 SH S1 500 Diode

\vdash	NOTATIONS	RIGHT CAP-P USE HICKOK ADAPTER SA-6 CODE NO. 1050-187	Left Cap-P	Dagi Dioge			XDual Diode				DOWN STAND PRESS SS	Grid No. 1 GRID NO. 1 HOLD	DOWN STAND PRESS SE	Plate No. 1 Plate No. 2	Can≕P	Check Only.	FOR SHORTS.	Coual Triode			XDual Diode	Leads 1-3-4-5	CTRIKES AT ABOUT 36	XDual Triode	HOLD DOWN ST AND PRESS SE.	20:01 01:01	XDual Diode	Apoid Isuda	TDual Triode
MINIMUM	MUT COND	625	625		475	475 650		475 500	475			250	475	650 650	300	Short	425		225 625	625 625			575		375			350	
	PRESS	S5	S S	SS	SS	So	83	\$ \$ 52	SS	\$ 8 4 4 4	S.	S5		83 83						SSS		S33 84 84	SS	SSS	3	84	233	\$ 25 to	SS
	MULT	× 4	× 1	X10	××	×× 4 4	SH	X X	×;	×× 4 4	X X	××	X 4	SH SH	X44 X44	Setti X4	× ×	** **	×× 4 4	×××	XX SHS	SH X20	XX T	XX X10	X X X	Z Z	S T S	X X Q	X X 4
	SHUNT	:	40	P !	i		40	į	1	1 1	6 2 2 1			30		This				1 1	30	30	03	3	1 :	5	5 6	1 10	0 ! !
_	BIAS	35	35	19	13	40	0	30	130	ر ت ھ	00	202	74	00		Use				300	33	က			25	39	000	120	
	SELECTORS	1762-0340	1726-0340	1	1	3610-5740	1	3610-8050	3610-5720	3610-5720	4370-5621	1 1	4130-2000	8200-6000 8200-4000	7250-3481	7250-3468	4572-6183	4356-2170 4572-6183	5320-1000	3610-8053	3700-9150	4300-1050 7841-5263	4310-5620	3672-8154	7250-3481	3540-1200	3600-5172	3610-5720	4572-6183
	己	12.6	12.6	၁ (၁	6.3	6.3	25.0	25.0			6.3	25.0	2.5	2.0	6.3	6.3				9 9	0°0	6.3			25.0	0	25.0		6.3 12.6
	TUBE TYPE	2894	5894	5897	5899	5900 5902		5904 5905		5907 5908	9			5931 5931	5932	(5961	5963	5964 5965	5971	5977	5987	5995 5998	6005	6021			6053 6053		
	NOTATIONS	STRIKES AT ABOUT 70 X=120 V.	FROM 5 TO 25 MA.	(FROM 1.5 TO 3.5 MA.	Tetrode No. 1	Tetrode No. 2	Uual Iriode	USE HICKOK ADAPTER SA-9 CODE NO. 1050-121				STRIKES AT ABOUT 27				Dual Diode		AMPL. SECT. HOLD DOWN SI AND PRESS \$5	Osc. Sect. Dual Triode	Dual Triode	AT115 V. REGULATION - 3 VOLTS	(FROM 1.5 TO 3.5 MA. (+130 V.	FROM 5 TO 30 MA.	Dual Triode	Cap=P		Dual Triode	Dual Diode	SA-9 CUDE NO. 1036-121 USE HICKOK ADAPTER SA-9 CUDE NO. 1030-121
MINIMIN		650 STRIKES AT ABOUT 70 95V (\$120 V)	FROM 5 TO 25 MA.		Tetrode No.	Tetrode No.		USE SA-9	200	525 475	×	650 STRIKES AT ABOUT 27 675	300	350		400 X Dual Diode 650 strikes at about #			400 Osc. Sect. 200 XDual Triode			275 (FROM 1.5 TO 3.5 MA.	==	XD	Cap=P	1 1 3 1	XD		300 SA-9 CODE NO. 1030-121 375 USE HICKOK ADAPTER 5A-9 CODE NO. 1030-121
MUMIMUM	MUT COND	>	>	OE 67E	S5 375 Tetrode No.	S5 375 Tetrode No.	S5 300	S5 400 USE SA-9	လ လ လ	SS	S5 475 XC	S6 650 sr S5 675	S	- 45 n	S5 550	S1 400 X S6 650	S5 250 S5 500	250	S5 400 S5 200	S5 225 S5 425	4S9 87V		S. 650	5 675 X D	6 250 Cap=P 1 400 Thual Diod	5 475 5 375	5 525 X D		5 375
	MULT PRESS MUT COND	S3 650 S9 95V	V78 6S†	OE 67E	S5 375 Tetrode No.	S5 375 Tetrode No.	S5 300	S5 400 USE SA-9	လ လ လ	SS	S5 475 XC	5 650 sr 5 675	S	- 45 n	S5 550	S1 400 X S6 650	S5 250 S5 500	250	S5 400 S5 200	S5 225 S5 425	4S9 87V	S5 275 (S9 100V (S	2001	S5 675 X D	S6 250 Cap=P S1 400 XDual Diod	S5 475 S5 375	S5 525 XD	S3 400 S5 325	5 375
	MULT PRESS MUT COND	H S3 650 R †S9 95V	R †S9 87V	OE 67E	S5 375 Tetrode No.	S5 375 Tetrode No.	S5 300	S5 400 USE SA-9	လ လ လ	SS	X10 S5 475 XC	S6 650 sr S5 675	S	X10 S4	X2 S5 550	S1 400 X S6 650	X10 S5 250 X4 S5 500	250	S5 400 S5 200	S5 225 S5 425	4S9 87V	S5 275 (2001	S5 675 X D	S6 250 Cap=P S1 400 XDual Diod	X4 S5 475 X20 S5 375	X4 S5 525 XD	S3 400 S5 325	S5 300 S5 375
	PRESS MUT COND	# 50 SH S3 650 VR †S9 95V	VR +S9 87V	× × ×	11 X10 S5 375 Tetrode No.	11 X10 S5 375 Tetrode No.	27 X1 S5 300	18 X10 S5 400 USE	26 X2 S5 38 X2 S5	× × × × × × × × × × × × × × × × × × ×	28 X10 S5 475 XD	# 94 SH S6 650 sr 10 X4 S5 675	22 X10 S5	10 X10 S4	0 X2 S5 550	0 78 SH S1 400 x # 94 SH S6 650	7 X10 S5 250 0 X4 S5 500	0 X2 250	20 X10 S5 400 14 X4 S5 200	0 X4 S5 225 0 X10 S5 425	VR 159 87V (#	S5 275 (X4 S5 650	X2 S5 675 XD	O SH S6 250 Cap=P 78 SH S1 400 XDual Diod	X4 S5 475 X20 S5 375	X4 S5 525 XD X20 S5 300	35 SH S3 400 X10 S5 325	S5 300 S5 375
	SHUNT MULT PRESS MUT COND	50 SH S3 650 VR †S9 95V	VR +S9 87V	24 C C C C C C C C C C C C C C C C C C C	310-5620 10 A4 55 675 Tetrode No.	532-7198 11 X10 S5 375 Tetrode No.	1/3-5482 16 X10 35 300 3540-1200 27 X1 S5 300	730-5060 18 X10 S5 400 USE SA-9	230-1000 26 X2 S5 230-1000 38 X2 S5	540-1200 8 X1 S5	572-9163 28 X10 S5 475 XC	94 SH S6 650 sr X4 S5 675	150-1060 22 X10 S5	310-8057 10 X10 S4	110-5627 0 X2 S5 550	0 78 SH S1 400 x # 94 SH S6 650	340–1050 7 X10 S5 250 310–5672 0 X4 S5 500	370-5621 0 X2 250	20 X10 S5 400 14 X4 S5 200	563–8172 0 X4 S5 225 590–1673 0 X10 S5 425	000-3050 VR †S9 87V (#	-1265 16 X4 S5 275	2602 28 X SF 650	5183 25 X2 S5 675 XD	3450 20 A13 34 300 Cap=P 3172 0 78 SH S1 400 XDual Diod	5740 16 X4 S5 475 1060 19 X20 S5 375	2170 24 X4 S5 525 XD	5380 0 35 SH S3 400 060 11 X10 S5 395	3481 17 X10 S5 300 3060 16 X10 S5 375
	BIAS SHUNT MULT PRESS MUT COND	352 # 50 SH S3 650 320 VR †S9 95V	0000-1070 VR †\$9 87V	000 000 000 000 000 000 000 000 000 00	4310-5620 10 A4 S5 675 4523-8197 11 X10 S5 375 Tetrode No.	4532-7198 11 X10 S5 375 Tetrode No.	3540-1200 27 X1 S5 300	2730-5060 18 X10 S5 400 USE SA-9	4230-1000 26 X2 S5 4230-1000 38 X2 S5	3540-1200 8 X1 S5	4572-9163 28 X10 S5 475 IC	310–6025 # 94 SH S6 650 sr 470–1265 10 X4 S5 675	3450-1060 22 X10 S5	3610-8057 10 X10 S4	4310-5627 0 X2 S5 550	4300-7215 0 78 SH S1 400 X 4310-6025 # 94 SH S6 650	2340–1050 7 X10 S5 250 4310–5672 0 X4 S5 500	4370-5621 0 X2 250	4310-6027 20 X10 S5 400 4572-6183 14 X4 S5 200	4563-8172 0 X4 S5 225 4590-1673 0 X10 S5 425	0000-3050 VR †59 87V (#	65 16 X4 S5 275 V	2 4310_5602 28 X4 S5 650	6 4572-6183 25 X2 S5 675 X D	1.4 4100-0000 0 0 SH S6 250 Cap=P 6.3 3500-6172 0 78 SH S1 400 XDual Diod	3 3610-5740 16 X4 S5 475 350-1060 19 X20 S5 375	3 4356-2170 24 X4 S5 525 XD	3 7200-5380 0 35 SH S3 400	17 X10 S5 300 16 X10 S5 375

D NOTATIONS	REGUATION = 5 VOL FROM 0.2 TO 1.5 MA. LEADS IN PIN POS. 1.2.	* Dual I Flode * 160 V. REGULATION=5 VOLTS	Tetrode No. 1	XDual Triode	XDual Triode	MAKE NO GAS TEST X Dual Triode	MAKE NO GAS TEST	CAP OVER OCTAL PINS 2-3-P CAP OVER OCTAL PINS 2-3-P CAP OVER OCTAL PINS	6-7=P		REGULATION = 8 VOLTS FROM 5 TO 25 MA.	LEADS—1,2,3, OUTSIDE LEADS—K MAKE NO GAS TEST MAKE NO GAS TEST	REGULATION=2 VOLTS FROM 5 TO 30 MA.			XDual Diode			Pent. Sect. Triode Sect.	XDual Triode	XDual Triode	
MINIMUM MUT COND	>	150V	500	325 625		175 300			00/	300	150 V	300	150V	108V	650 500 425			700 475				650 X 475 250
PRESS	†S9	6S 1 1	S55	ი ი	SS R R	S2 S2	S5 S5	80 50 1	1	S S S S	681	S1	.S9	83	\$52 \$55 \$5	S22 S1	SS	S S S 1	ນ ເນ ແ ນ ເນ ແ	SSS	SS	လ လ လ
MULT		Z Z Z	**	X X X	XXX	STO X10	2××	× × × × × × × × × × × × × × × × × × ×	-	222		SS	VR	o-lan-								XX10 X20
SHUNT	į	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			2 8 2 9 3 9 5 9	0			Code			0	;		0	182	; ;		4 8	0 5 5 5 5 5 6 7 8		45
BIAS	1 6	17	500	23	15	24	13	55 15	pter	35	2	00	i	1	000	000	4 8	0 2 7	707	25	<u>ω</u> τ	31
SELECTORS	1020	1020	8720 6720	3510 -6482	6183	-2041 -6172	1200	0740 0740	k Ada	1200 1050	3050	-2041	5020	5020	1050 -5672 -5627	5627	1070	5317	5370 1080 5183	5183	7918 5184	-91/3 -1730 -5720
SELEC	0000-1020	0000-1020	4531-8 4513-6	68/0-3510 9173-6482 7180-3600		3500- 4583-	1 1	7841-5263 5362-0740 526 0140	Hickok Ad	3540-1200 6720-1050 3470-1265	0000-3050	1 1	-0000	-0000	0000-1050 4310-5672 4310-5627	4310-	4360- 4310-	#310-E	4590-	4572-6183 4572-6183	4520-7918 3672-5184	4500-9 4520-1 3610-5
른		OFF OFF				1.4				6. 4 6. 4	1.1	4.4.		OFF								6.3
TUBE TYPE															0				-	, , ,		
1786	6332	6354	(6360	6386 6386 6397	6414	6418 6463	6485 6519	6524 6524 6524	+7CO)	6526 6533 6540	6542	6611 6612	6626	6627	6659 6660 6661	6662	6669	9299	8299)	6680	6690	6761 6788 6788
								_									_					
S MUT COND NOTATIONS	150V {#EBUNTION = 2 VOLTS FROM 5 TO 30 MA. 108V 108V			▶ Dua	400 XDual Diode	XDual XDual	X Dual	675 475 200	425 Cap=P		USE HICH	675 XDual Triode 475 625 XDual Triode		50 ▲∪u ai 75	475 550 X Dual Triode 130V (Security and 130V)		275 475	475 675	USE I	5 CO	00 l	400 Cap=F 87 V REGUATION = 3 VOLTS [FROM 1.5 TO 1.5 MA.
MINIMUM MUT COND		S4 625	S5 575 A25 A25 A25 A25 A25 A25 A25 A25 A25 A2	S5 550 S5 675	S1 400 XD ual	S1 400 X Dual S4 300 X Dual	S5 400 X Dual S5 375	ນ ເນ ເນ	S4 425 Cap	\$5 675 \$5 625 \$4 425	S1 400 S5 625	S5 675 X Dual S5 625 X Dual	S3 650 XDual	S5 630 ADual	S5 475 S5 550 7 †S9 130V	S4 550	വവ	വവ	5 300 5 450 USE 1	NSE HIC SA-9 CO	3 650 lop	9 87V (*115
MINIMUM MUT COND	S9 150V S9 108V	S4 625	S5 575 A25 A25 A25 A25 A25 A25 A25 A25 A25 A2	S5 550 S5 675	S1 400 XD ual	S1 400 X Dual S4 300 X Dual	S5 400 X Dual S5 375	ນ ເນ ເນ	S4 425 Cap	\$5 675 \$5 625 \$4 425	S1 400 S5 625	675 X Dual 475 625 X Dual	S3 650 XDual	S5 630 ADual	S5 475 S5 550 7 †S9 130V	S4 550	N	S S S S	S5 300 USE 1	5 450 USE HIG 5 425	S4 525 C	159 87V (REGIN
SHUNT MULT PRESS MUT COND	†S9 150V †S9 108V	S4 625	S5 575 A25 A25 A25 A25 A25 A25 A25 A25 A25 A2	X10 S5 550 X4 S5 675	SH S1 400 X Dual X10 S5 325	S1 400 X Dual S4 300 X Dual	S5 400 X Dual S5 375	ນ ເນ ເນ	S4 425 Cap	X4 S5 675 X4 S5 625 X10 S4 425	S1 400 S5 625	X2 S5 675 XDual X10 S5 475 X4 S5 625 XDual	S3 650 XDual	X4 S5 475	S5 475 S5 550 7 †S9 130V	S4 550	N	S S S S	S5 300 USE 1	S5 450 USE HIG S5 425	X2 S4 525 CT X2 S4	159 87V (REGIN
BIAS SHUNT MULT PRESS MUT COND	VR †\$9 150V	55 X4 S4 625	55 X4 S4 625 715 X2 S5 575 17 X4 SF 475 475	10 X10 S5 550 10 X4 S5 675	0 78 SH S1 400 X Dual	0 70 SH S1 400 XDual 8 X10 S4 300 XDual	15 X4 S5 400 X Dual	25 X2 S5 10 X4 S5 10 X4 S5	12 X10 S4 425 Cap	10 X4 S5 6/5 29 X4 S5 625 12 X10 S4 425	0 78 SH S1 400 10 X4 S5 625	25 X2 S5 675 XDual 12 X10 S5 475 14 X4 S5 625 XDual	0 0 SH S3 650 X Dual	16 X4 S5 475	13 X4 S5 4/5 23 X4 S5 550 3 VR †S9 130V	0 X10 S4 550	21, X2 S5 16 X4 S5	16 X4 S5	11 X4 S5 300 16 X10 S5 450 use 1	X10 S5 450 USE HIG X4 S5 425	30 SH S3 650 10p X2 S4 525	VR †S9 87V (#160m
SHUNT MULT PRESS MUT COND	5020 VR †\$9 150V 5020 VR †\$9 108V	55 X4 S4 625	55 X4 S4 625 715 X2 S5 575 17 X4 SF 475 475	10 X10 S5 550 10 X4 S5 675	0 78 SH S1 400 X Dual	0 70 SH S1 400 XDual 8 X10 S4 300 XDual	15 X4 S5 400 X Dual	25 X2 S5 10 X4 S5 10 X4 S5	12 X10 S4 425 Cap	10 X4 S5 6/5 29 X4 S5 625 12 X10 S4 425	0 78 SH S1 400 10 X4 S5 625	520–6317 12 X10 S5 475 572–6183 14 X4 S5 625 X Dual	300-6170 0 0 SH S3 650 X Dual 500-9170 0 18 SH S3 650 X Dual	000-91/0 0 10 071 05 000 10 010 010 010 010 010 010 010	572-6183 23 X4 S5 475 572-6183 23 X4 S5 550 3 000-3050 VR †S9 130V	-1730 0 X10 S4 550	-8050 20 X10 35 -8050 21, X2 S5 -5780 16 X4 S5	-5720 16 X4 S5 -1265 10 X4 S5	-8050 11 X4 S5 300 -5060 16 X10 S5 450 use use	-5060 16 X10 S5 450 USE HIG -5627 10 X4 S5 425	230-1000 22 X2 S4 525 C50 C50 C50 C50 C50 C50 C50 C50 C50 C5	250-0310 0 VR †S9 87V (#160m
BIAS SHUNT MULT PRESS MUT COND	VR †\$9 150V	7841-5263 55 X4 S4 625	7841–5263 55 X4 S4 625 74590–6138 15 X2 S5 575 4572–6183 17 X4 S5 4575	4520-6139 10 X10 S5 550 4310-5620 10 X4 S5 675	4300–7215 0 78 SH S1 400 X Dual 6870–3510 17 X10 S5 325	3600-5172 0 70 SH S1 400 XDual 3672-8154 8 X10 S4 300 XDual	3672-8154 15 X4 S5 400 X Dual 7240-8653 13 X10 S5 375	4360-10/0 25 X2 S5 4310-5672 10 X4 S5 7240-8653 10 X4 S5	7250-0308 12 X10 S4 425 Cap	34/0-1265 10 X4 S5 675 4530-1020 29 X4 S5 625 7250-0318 12 X10 S4 425	2700-5060 0 78 SH S1 400 4310-5620 10 X4 S5 625	520–6317 12 X10 S5 475 572–6183 14 X4 S5 625 X Dual	4300-6170 0 0 SH S3 650 X Dual 4500-9170 0 18 SH S3 650 X Dual	3610-5724 16 X4 S5 475 475	572-6183 23 X4 S5 475 572-6183 23 X4 S5 550 3 000-3050 VR †S9 130V	3 4520–1730 0 X10 S4 550	3 3610-8050 20 X2 S5 3610-5780 16 X4 S5	3 3610–5720 16 X4 S5 3 3470–1265 10 X4 S5	3 7230-5060 16 X4 S5 300 seri	-5060 16 X10 S5 450 USE HIG -5627 10 X4 S5 425	4 4230-1000 22 X2 S4 525 525 525 525 525 525 525 525 525 52	FF 0000-3010 VR †S9 87V (FROM

		₽ Z		150-127	5	11-001			.0								
NOTATIONS	Pent. Sect. Triode Sect. KDual Triode KDual Triode	Cap = P Cap = P Connect Pin 1 TO Pin AND PIN 5 TO PIN 7 ON LICETAL SOCKET.		USE ADAPTER SA-3 , 1050-127	HOLD DOWN	CAP-P. HOLD DOWN ST AND PRESS S5.	Pent. Sect. Triode Sect.	g	Pent. Sect. Triode Sect.	s. de Sect.	XDual Diode XDual Triode	Triode	Triode Sect.	Pent. Sect.	le Sect	<u>.</u>	XDual Irlode XDual Triode
	Pent. Triode XDual	Cap = Cap = Connection		USE ADA	ST AND	CAP=P. H AND PRE	Pent	Cap=G	Pent Trioc	Press ss. Triode	XDual XDual	X Dual Pent	Triode	Pent	1 1100	Cap=	XDual XDual
MINIMUM MUT COND	375 700 675 675 475	425 425 650	475 475 475	375 375 600	600	450	550 425	375 550	425 575 625				525	500 650	550 600 475	450 575	325 475 350
PRESS	လွလလွလ	20 S S S S		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$	SS	လွလင်္	S S 2 2	SS								S5 S5
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MULT PRESS MUT COND NOTATIONS	X4 S5 650 X10 S5 425 X D X2 S5 325 X D X4 S5 700 23 X4 S5 700 23 X6 1050 107	X2 S5 700 X10 S4 425 SH 400 XE	S5 475 Caper S5 475 X Dual I S6 675 X Dual I S7 575 X Dual I	S5 425 Tetrode No. S5 425 Tetrode No. S5 475 Tetrode No. S5 475	S5 450 S5 600 S6 600	S5 300 X Dual S5 300 X Dual	S5 200 XI	375 si S5 375 S5 S5 475 XI	S5 500 XI	\$5 425 XI	S5 475 F	S5 600 T S5 575	S5 500 XC S5 350 "	S5 575 PRESS SC	S5 375 Pent. S5 650 Triod S4 425 Cap =	S4 550 X	S5 350 S5 200 S5 675
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SHUNT MULT PRESS MUT COND NOTATIONS	2050 24 — X4 S5 650 1183 15 — X10 S5 425 XD 1154 27 — X2 S5 325 XD 1740 15 — X4 S5 700 23 1740 15 — X4 S5 700 23	265 17 X2 S5 700 3318 12 X10 S4 425 (510 17 X10 S1 400 X10	163 28 X10 S5 325 Caper 163 28 X10 S5 475 XDual I 2215 0 78 SH S1 400 XDual I 1183 21 X10 S5 675 XDual I 670 18 X4 S5 575	3720 12 X10 S5 425 Tetrode No. 3720 12 X10 S5 425 Tetrode No. 3724 11 X4 S5 475	720 44 X4 S5 460 8050 27 X4 S5 600	154 16 X4 S5 300 XDual 1754 16 X4 S5 300 XDual 1770 14 X7 S5 376	1183 14 X4 S5 200 XI	627 0 X2 375 5 627 0 X2 S5 375 (627 0 X2 S5 375 (72 0 X10 S5 475 X1	813 0 X10 S5 500 215 0 78 SH S1 400 XI 627 10 X4 S5 700	1183 17 X10 S5 425 XI	370 12 X4 S5 475 F F 80 10 X10 S5 525 7	030 16 X4 S5 600 7170 18 X4 S5 575	1163 17 X20 S5 500 XE 020 15 X20 S5 350 XE	930 12 X10 S5 575 PRESS 83	360 / X10 S5 375 Pent. 080 29 X2 S5 650 Triod 318 12 X10 S4 425 Cap =	080 29 X20 S4 550 X	080 14 X4 S5 350 080 14 X4 S5 200 030 25 X2 S5 675
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9511-23 SUNRISE BLVD

TUBE TESTERS



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CHART OF OBSOLETE TUBES FOR

AC51 - 51X - T53 - 530 - 510X WO-1/2

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•	Press Notations	Ampl. Left at 701/2 for GM		Short Test—Should light on 1-2-3-4-5	Plate No.	Rect. Std. Plate No. 2	Ampl.	Ampl.	Ampl.	4	Ampl.	Ampl. Short on !-	•	Short Test-Should light on 1-2-3-4-5	Ampl.	Ampl.	ABDI.	Ampl. Left at 761/2 for GM	Rect. Std. Plate No. 1	Rect. Std. Plate No. 1	Rect. Std. Plate No. 2-3-4-5	Ampl. Also 51S Ampl.	No. 1	Ampl. No. 2 Plate	Diode OK ever 500 Diode OK ever 500	Ampl.	Ampl. Also 57AS	Ampl. Also 585	Ampl.	Short on 1-4-5	Check for Shorts	Ampl. Sec. Left at 701/2 for GM	Ampl.	Ampl. Section	Diode	Ampl. Section	Dlode	Ampl. Ampl.	
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Ampl. Left at 70½ for GM Con-nect Pl. to top cont. of 7 pin sec. Ampl. OK over 280

Late Tubes Short 3

Rect. Std. Strikes at 60 on R Rect. Std. Strikes at 60 on R

Proceeding RECT, PRESS TILL HOTE Early Tubes Short 1-3

Rect. Std.
Ampl. Left at 76½ for GM
Rect. Std. Also Press 117N7 But.
Ampl. Left at 70½ for GM
Rect. Std. also Press 117N7

Ampl. Short on 1-4-5 Left at 701/2 for GM

g

Ampl. No. 1 Plate
Ampl. No. 2 Plate

Rect. Std.

Rect. Std. Rect. Std. Rect. Std. 84

Ampl. OK over 340 UX-199

Ampl. Section Rect. Std.

Diode Diode Ampl.

Rect. Std.

Rect. Std.

Rect. Std.

Rect. Std.

Rect. Std.

Rect. Std. Rect. Std. Ampl. Short on 1-4-5 Left at 701/2 for GM

Rect. Std.

18-

Ampl. OK ever 360
Ampl. OK ever 290
Ampl. OK ever 360
Rect. Sid. Strikes at 32 on R
Rect. Sid. Strikes at 32 on R

-6-

Ampl. Left at 7042 for GM Ampl. Left at 7042 for GM Ampl. Left at 7042 for GM

Ampl. OK over 290

Ampl.

Ampl. Left at 701/2 for GM

Ampl. Cap Grid

Ampl.

Ampl. Led

Ampl.

Ampl. Ampl.

Ampl.



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	Press Notations	Sho	Hect. Sid. Rect. Sid. Ampl. Triode Sec. Short on 1-4-5 Diode No. 1	Diode No. 2 Ampl.	Diod.	Ampl. Hax. Sec. Ampl. Triode Sec. Ampl.	Rect. Std. Ampl.	Ampl. Ampl. Ampl.	Ampl. Also 24A	Check for Shorts Rect. Std.	Ampi. Ampi. Ampi.	Ampl. Left at 701/2 for GM Ampl. Pentode Section	Ampl. Triode Section Ampl. Left at 78½ for 15000 GM Ampl. Pent. Section	Ampl. Triode Section	Ampl. Left at 761/2 for GM . Ampl. Rect. Std. Plate No. 1	Rect. Sid. Plate No. 2 Rect. Sid.	Rect. Sid. Rect. Sid. Bect. Sid.	Rect. Std.	Rect. State Rect.	Rect. Sid.	Ampl. Also 278 Ampl.	Ampl. Test for Shorts Ampl. Lett at 70½ for GM Rect. Sid. Ampl.	Also 258	Ampl. Left at 70½ for GM
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Rect. Std. also Press 117N7 But. Ampl. Pentode Section Ampl. Osc. Sec OK over 240 Ampl. Trl. Sec. OK over 360 Rect. Std. also Press 117N7 Ampl. Left at 701/2 for GM Ampl. Left at 701/2 for GM Ampl. Tri. Sec. OK over Ampl. Short on 2-3 Diode Button, Amp. Sec. Notation Ampl. Heptode Section Ampl. Triode Section Ampl. Hexode Section Ampl. Triode Section Ampl. Pent. Section Ampl. Pent. Section Ampl. No. 1 Plate Ampl. No. 1 Plate Ampl. No. 2 Plate Ampl. No. 2 Plate Ampl. No. 2 Plate Ampl. No. 1 Plate Ampl. Cap Grid Ampl. Pin Grid Impl. Osc. Section Diode Section Diode Button mpl. Section Ampl. Section Ampl. Section Dlode Button Diode Button Ampl. Section Diode Button Diode Button Diode Button Diode Button Ampl. Ampl. Ampl. Ampl. Ampl. Ampl. Ampl. Ampl. Ampl SC7 SC7 SD7GT SF5 6SN7GT 6SN7GT 6SQ7 6SQ7 6SQ7 6F8G 5F8G 3G6G H4GT N6MG KSG K6G 15G 200 S7G 6SF7 6SF7 5SG7



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Tube	5V4G	SV4G	5 W 4		5X4G	2 X 3	573	2442	523	523	524	6A3	6A4 686	6A6	6A7	6A7	6A8	6A8 6A866	6ACSG	6AC6G	6AC7	6AD7G	6AESG	6AE6G	6AE7G1	6AFSG	6AH7G	6AH7G 6AL6G	684G	6B6	6 B6 6B6	687	687	6B8 6B8	688	929	607	6C7	90 90 90 90 90 90	9 Q 9
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4	-	9	က	49	30	1300	Ampl.	
486		9	က	09	35	450	Ampl. OK over 360	360
585	7	0	7.5	53	20	1500	Ampl.	
586	2	0	7.5	53	20	1500	Ampl.	
C686	_	9	3	09	35	450	Ampl. OK over 360	360
P861	7	7	6.3	40	0		Press Rect. Std. But	. But.
P861	S	7	6.3	40	0		Press Rect. Std. But	. But.
AD	~	S	6,3	40	0		Press Rect. Std. But	. But.
AF	:	;	i	:	•		Same as 82	
AG	:	:	:				Same as 83	
GA		S	S	09	16	2000	Ampl.	
LA	_	2	6.3	09	23	2000	Ampl.	
Zd	-	2	2.5	09	8	2000	Ampl.	
Н2Ч	œ	80	2.5	63	25	2400	Ampl.	
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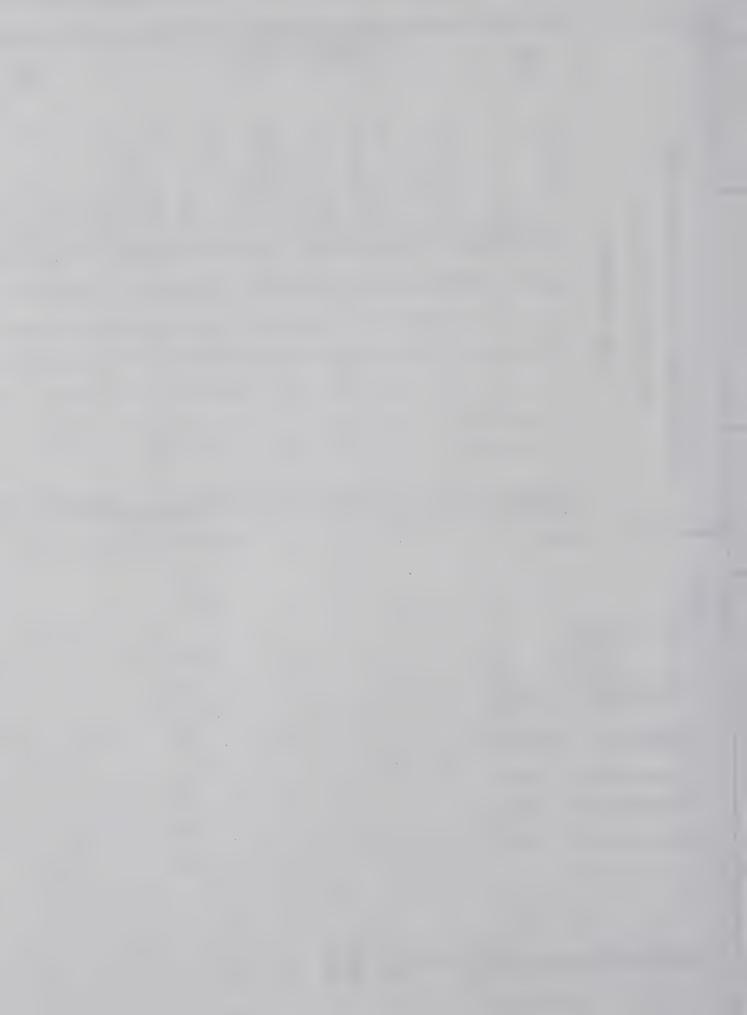
AC-28 150 USE 12.6 Oct high Line

HICKOK TUBE DATA FOR MODELS

AC51-AC51X-T53-510X-530

TUBE TESTERS

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Press Notations	Ampl.	024 Button	Ampl.	Check for Shorts 024 Button	024 Button	Ampl.	Ampl. Section	Ampl. Onc. Sec. OK over 120	Pent. Section	Ampl. Osc. Sec. OK over 240	Ampl. Sec. Off over 380	But.	But.	Pent. Section	Ampl. Osc. Sec. Ok 6ver 240	Ampl. Section	Ampl. Osc. Sec. OK over 240	Section	Ampl. Onc. Sec. OK over 240	Ampl. Section		Ampl. Pent. Section	Diode Section	Ampl.		Ampl. No. I Plate	No. Z	Ampl.	Section	Diode But, OK over 500	Pentode Sec.	Diode Button			Ampl. No. 1 Plate		Ampl. OK over 220	Diode Button Ampl. Section	Dlode Button	Diode Bution
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Type	400	0746	1	024	024	174	146	146	1A7G	1A7G	185	185	185		1050	106	1C6	1070	250	1079	1076	10801	IDBGT	1E4G	1 IESG	1570	154	1F5G	F6	1F6	1F7G	1F7C	1646	1656	10.60 10.60 10.60	1H4G	1HSG	1H6G	1H6G	Posta
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MODEL 752A DYNAMIC MUTUAL CONDUCTANCE TUBE TESTER

© THE HICKOK ELECTRICAL INSTRUMENT CO.—1965 10514 DUPONT AVENUE • CLEVELAND 8, OHIO

PHONE — 541-8060 TWX — CV 662 CABLE — HICKOK, CLEVELAND
WESTERN UNION — KJ
2490 - 476 (11-64)

STANDARD EIA GUARANTEE

The Hickok Electrical Instrument Company warrants instruments manufactured by it to be free from defective material or factory workmanship and agrees to repair such instruments which, under normal use and service, disclose the defect to be the fault of our manufacturing. Our obligation under this warranty is limited to repairing any instrument or test equipment which proves to be defective, when returned to us transportation prepaid, within 90 days from the date of original purchase, and provided the serial number has been made known to us promptly for our records.

This warranty does not apply to any of our products which have been repaired or altered by unauthorized persons or service stations in any way so as, in our judgment, to injure their stability or reliability, or which have been subject to misuse, negligence, or accident, or which have had the serial number altered, effaced or removed. Neither does this warranty apply to any of our products which have been connected, installed, or adjusted otherwise than in accordance with the instructions furnished by us. Accessories, including all vacuum tubes not of our manufacture, used with this product are not covered by this warranty.

This warranty is in lieu of all other warranties expressed or implied, and no representative or person is authorized to assume for us any other liability in connection with the sale of our products.

Parts will be made available for a minimum period of five years after the manufacture of this equipment has been discontinued. Parts include all materials, charts, instructions, diagrams, accessories, etc., which have been furnished in the standard model.

RETURNING EQUIPMENT FOR REPAIR

Before returning any equipment for service, under warranty or otherwise, the factory must first be contacted giving the nature of the trouble. Instructions will then be given for either correcting the trouble or returning the equipment. Upon authorization, this equipment should be forwarded directly to the Hickok factory address, 10636 Leuer Avenue, Cleveland, Ohio, or to a designated service station in your locality. All correspondence pertaining to repairs should be directed to the Hickok office address, 10514 Dupont Avenue, Cleveland 8, Ohio, or to the authorized service station designated.

REGISTRATION CARD

The above guarantee is contingent upon the attached registration card being returned to the factory immediately upon receipt of the equipment.

THE HICKOK ELECTRICAL INSTRUMENT COMPANY Cleveland, Ohio

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CHAPTER I - INTRODUCTION

Section 1.1: General Description

The Hickok Model 752ATube Tester combines the characteristics of accuracy and dependability together with the advantages of portability and simplicity of operation to meet the needs of those technicians who maintain modern electronic equipment. The design specifications of the Model 752A include the very latest tube-testing techniques to provide an accurate evaluation of the performance capabilities of electron-tubes of the receiving and low power transmitting types.

The Model 752A employs the Dynamic Mutual Conductance test method to evaluate electron tubes of the amplifier type. The results obtained from this test method are indicative of the performance capabilities of a tube in actual equipment operation. The dynamic mutual conductance of the tube under test is quantitatively indicated directly in micromhos on the test meter.

The Model 752A employs a controlled emission test to provide a meaningful evaluation of diode tubes of the rectifier and detector types. The instrumentalso provides a voltage regulator tube test circuit which permits the testing of voltage regulator tubes in accordance with tube manufacturer's handbook operating conditions.

To insure a complete evaluation of the tube under test, the Model 752A provides three basic fringe tests: (1) An interelement short and leakage test is provided as a preliminary check on all electron-tubes. The resistance of interelement leakage paths is measured directly in ohms on the test meter. (2) A gas test is also provided; this test is an integral step in the evaluation of any amplifier type tube. (3) A life test, which determines the efficiency of the cathode, is provided to forecast the future life of the tube under test.

The outstanding feature of the Model 752A is the dual tube test which permits the testing of electron-tubes containing electrically similar sections with one setting of the selector switches. Each section of the tube is independently tested for interelement leakage, performance capability, and gas by simply depressing an additional push-button which transfers the tube test conditions from one section of the tube to the other. This feature is particularly useful when testing and selecting tubes for use in balanced circuits.

Many new mechanical design features have been incorporated into this tester to facilitate the rapid selection of the proper test conditions for the tube under test. The panel layout is designed to provide a direct correlation between the order in which the roll chart data is presented and the order in which the tube-test selector switches are arranged. This arrangement not only reduces the time needed for testing a tube, but also reduces the possibility of operator-error in setting up the specific tube test conditions. To further reduce the time normally required in testing tubes and to aid in the interpretation of test results, the test meter scales have been simplified. Mutual conductance values are indicated on one basic 0-1500 micromho scale. The Gm of the tube under test can be determined by multiplying the indicated meter reading by the multiplier selector switch setting. Separate meter scales are provided for the interelement leakage and voltage regulator test circuits.

The Model 752A also makes available on its main panel ten of the most commonly used tube sockets. The various tube parameters are applied to the pins of these tube sockets through anti-oscillation wiring by a system of rotary selector switches. These selector switches are numbered in accordance with the EIA system of tube pin designation, and are wired in such a way that they are electrically interlocked to prevent the application to two different test potentials to the same tube pin. This not only prevents damage to the tube under test, but also prevents damage to the tester.

The following special tube adapters are available for use with the Model 752A.

NOMENCLATURE

Adapter:	Cathode ray tube	1050-28
Adapter:	2C39C tube	1050-50
Adapter:	Long-Lead Subminiature Tube	1050-89
Adapter:	829B tube	1050-107
Adapter:	4X150A/4X250B tube	1050-109
Adapter:	991 tube	1050-118
Adapter:	2C36 tube	1050-119
Adapter:	2-01C tube	1050-120
Adapter:	6263, 6173, 5675 pencil tubes	1050-121

The built-in roll chart provides the test data for all the tubes normally encountered in the servicing of modern electronic equipment. The roll chart is replaceable, and generally it is revised semi-annually to include data on tubes available at the time of each printing. Revised roll charts can be ordered direct from the factory.

HICKOK CODE NO.

Detailed information on the physical and electrical properties of the Model 752A can be found in the Specifications Section 1-2.

To ensure safe, accurate and efficient service from your tube tester, Chapter II (Operating Instructions), should be carefully read and understood.

The Model 752A Tube Testers beginning with Tube Testers bearing serial numbers prefixed with 324, and above, are designed to operate on either 115 volts or 230 volts. They are shipped from the factory to operate on 115 volts. If 230 volt operation is desired, it is necessary to change the wiring of the power transformer from a parallel hook-up to a series hook-up. For 115 volt operation, no modification is necessary. For parallel and series hook-ups, see the schematic wiring diagram in the rear of this manual.

For modification of the Model 752A Tube Tester, from 115 volts to 230 volts, proceed as follows:

a. POWER TRANSFORMER

- 1. Disconnect the black wire which is connected to the lug marked (w), and disconnect the white-black wire which is connected to the lug marked (x). Both located on transformer.
- 2. Splice together and solder the two above wires. Insulate connection with electrical insulating tape.
- 3. Do not disturb other wires which are connected to the lugs marked (w) and (x). Inspect (w) and (x) for good electrical connection.

b. LINE FUSE

1. Replace the No. 81 fuse lamp with a No. 63 lamp.

c. CALIBRATION

- 1. Plug Tube Tester into a 230 volt a. c. power source and turn on.
- 2. Rotate LINE ADJUST until the needle on the meter is in the area marked LINE TEST.
- 3. No further calibration is necessary.
- d. For modification from 230 volts to 115 volts, reverse the above procedure.

Section 1-2: Model 752A Specifications

I POWER REQUIREMENTS:

A. Voltage: 115 volts or 230 volts.

B. Frequency: 60 cycles.

C. Power Consumption: 40 watts, minimum. 70 watts, maximum.

D. Protection: Line fuse (#81 lamp), for 115 volt operation.

Line fuse (#63 lamp), for 230 volt operation.

Bias fuse (#49 lamp)

II TUBE-TEST POTENTIALS:

A. Plate Voltages: 75 and 150 volts D. C.

B. Screen Voltages: 56 and 130 volts D. C.

C. Fixed Bias Voltages: 0 to -40 volts D. C., adjustable.

D. Extra Negative Voltage: -40 volts D. C.

E. Provisions for Self-Bias Tests.

F. Signal Voltages: 0.25, 0.5, 1.25, 2.5 volts A.C.; 60 cycles.

G. Diode Test Voltage: 20 volts RMS.

H. V. R. Tube Test Voltages: 0-200 volts D. C., adjustable.

I. OZ4 Test Voltage: 287 volts RMS.

J. Filament Voltages: 0-117 volts A. C. (18 steps).

III TEST METER:

A. Mutual Conductance Ranges: 0-1500/3000/6000/15, 000/30, 000μ mhos. (Readings obtained from basic 0-1500 Gm scale and multiplier switch).

B. V.R. Test Scales: 0-200 volts D.C.

0-100 milliamperes.

C. Leakage Scale: Calibrated in Ohms.

IV TUBE COMPLEMENT:

Quantity	Туре
1 ea.	83
1 ea.	5Y3

V PHYSICAL SPECIFICATIONS:

A. Height: 7-1/2"

B. Width: 18-3/8"

C. Depth: 16-3/4"

D. Weight: 25 lbs.

E. Case: Portable, Black Leatherette Covered.

NOTES

CHAPTER II - OPERATING INSTRUCTIONS

Section 2-1: Panel Components; Identification and Function.

See Figure 1 to locate the various panel components referred to in this section. The functions of these components are described as follows:

A. The Controls:

- 1. The POWER ON-OFF switch controls power input to Model 752A.
- 2. The LINE ADJUST controls the input voltage to the power transformer for proper standardization of test potentials applied to the tube under test.
- 3. The FILAMENT VOLTAGE switch provides an 18-step selection of filament or heater voltages from 0. 6 volts through 117 volts A. C. An OFF position is also provided for use when testing V. R. tubes and cold cathode rectifiers.
- 4. Selector switches, FILAMENT (2), GRID A, GRID B, PLATE, SCREEN, CATHODE, and SUPPRESSOR, provide proper switching of the internal circuits to apply the correct test potentials to the various pins of the tube under test.
- 5. The BIAS control is used to adjust the bias voltage applied to the tube under test.
- 6. The SHUNT control is a dual potentiometer used to adjust the sensitivity of the meter circuit to the proper level required for testing rectifier and detector type diodes.
- 7. The MULTIPLIER switch is used to select the proper meter range for the particular type of tube under test. For mutual conductance tests, the MULTIPLIER switch is set to the X1, X2, X4, X10, or X20 position. This extends the full scale range of the basic 0-1500 micromho scale to 3000, 6000, 15,000, and 30,000 micromhos respectively. For controlled emission tests on rectifier and detector type diodes, the MULTIPLIER switch is set to the SH or shunt position. This connects the SHUNT potentiometer into the circuit, and this control should then be set to the value indicated on the roll chart. For voltage regulator tests, the MULTIPLIER switch is set to the VR position. In the VR position the test meter becomes a 0-200 VDC voltmeter, and when S-9 is depressed the test meter becomes a 0-100 milliammeter.
- 8. The LEAKAGE switch, when rotated through positions 1, 2, 3, 4, 5, and 6, connects the various elements of the tube under test across a test voltage. In certain positions of the LEAKAGE switch, tubes having interelement leakage paths will complete the test circuit and cause the pointer of the test meter to move up scale.
- 9. The ten push-button switches located in the lower righthand portion of the panel actuate the proper test circuit, as indicated on the roll chart. Their designation and function is as follows:
 - a. S1 DIODE used when testing low-power diodes, such as the 6H6.
 - b. S2 0Z4 used when testing cold cathode rectifiers, such as the 0Z4.
 - c. S3 RECT. used when testing rectifiers, such as the 5Y3, 6X4, etc.
 - d. S4 LOW PLT. used when testing amplifier type tubes such as the 1R5 and 1S4.

- e. S5 RED GM push-button for mutual conductance test on amplifier tubes only. NEVER USE THIS BUTTON WHEN TESTING RECTIFIER TUBES.
- f. S6 GAS #1 and S7 GAS #2 used when making gas test on amplifier tubes.
- g. S8 PLT #2 used when testing multiunit tubes with electrically similar sections. By depressing S8, the test conditions are transferred from one section of the tube to the other; thus each section can be independently evaluated.
- h. S9 V. R. MILS this switch converts the test meter into a 0-100 milliammeter during the V. R. tests.
- i. S10 LINE used in conjunction with the LINE ADJUST control and LINE TEST point on the meter to standardize tube test potentials.
- 10. The VR VOLTAGE adjust is used to control the voltage applied to voltage regulator tubes during a VR test.
- 11. The LIFE TEST switch is used when making a reserve life test on a tube. When this switch is pressed the filament voltage of the tube under test is reduced by approximately 10% of its normal value. The efficiency of the cathode of the tube under test can then be evaluated and the future life of the tube approximated.
- B. The TEST METER gives a quantitative indication of the tube-test results on three separate scales.
 - 1. The LEAKAGE scale is calibrated in ohms. Interelement leakage paths up through 10 megohms can be measured.
 - 2. The MICROMHOS scale is used to give a quantitative indication of the results of the Gm, Emission, and Gas tests. The range of the basic 0-1500 micromho scale is extended by use of the MULTIPLIER switch. The readings obtained on this scale, when compared with the recommended rejection values listed in the MINI-MUM MUT. COND. column of the roll chart, are indicative of the performance capabilities of the tube under test.
 - 3. The VOLTS-MILS scale is calibrated in D. C. volts and milliamperes. During V. R. tests, it indicates the striking, operating, and regulating voltage of the V. R. tube, along with the current range over which the tube is regulating.
- C. The TEST SOCKETS are located along the upper edge of the panel and to the left of the test meter. The 15 tube sockets provided will accommodate the following tube-types: In-Line and 8 pin Subminiatures, Octal, Loktal, 7 pin Miniature, 4, 5, 6, and 7 pin Standard, Acorn, and 9/10 pin miniature, 5 pin Nuvistor, 7 pin Nuvistor, Compactron and Novar.
- D. LEADS, LAMPS and CONNECTIONS:
 - 1. Two TEST LEADS are provided to make connections from the G, P and K panel jacks to the top caps of tubes as required. When the leads are not in use, they can be stored in the lead compartment at the top of the case.

The LINE FUSE lamp serves both as a protective device and an overload indicator. This lamp will light brightly when an overload is placed on the tester or the tube under test. When this occurs turn OFF the equipment immediately. The LINE FUSE lamps (#81 or #63 depending upon the input voltage) is mounted in the upper left-hand portion of the main panel where it is readily visible.

3. The BIAS FUSE lamp is connected into the bias supply circuit. It serves as a

protection for the bias potentiometer in case an attempt is made to test a shorted tube. A burned out BIAS FUSE lamp will result in the failure of the test meter to read when the Gm button is pressed. The BIAS FUSE lamp (#49) is mounted in the upper left-hand portion of the main panel where it is readily visible.

- 4. One red and two black jacks, marked P, G and K respectively, provide connections for the test leads necessary to test tubes with top cap connections.
- 5. The EXT. SELF BIAS RES. jacks provide the means of making self bias tests. IMPORTANT the shorting link across the SELF BIAS terminals must be in place when these terminals are not in use.

E. TUBE TEST DATA:

- 1. All information necessary for properly setting the tube test controls for the various tube types is tabulated on the roll chart in nine columns under the following headings, reading from left to right:
 - a. TUBE TYPE: All currently available type numbers for the tubes which the Model 752 is designed to test are listed numerically in this column starting with type 0A2 and continuing through type AX9903.
 - b. FILAMENT: Correct filament or heater voltages for the tube type to be tested are shown in this column. The FILAMENT VOLTAGE switch must be adjusted BEFORE inserting a tube in any of the test sockets.
 - c. SELECTORS: The tube pin selectors FILAMENT (2), GRID A, GRID B, PLATE, SCREEN, CATHODE, and SUPPRESSOR are to be set in accordance with the two groups of four digit numbers appearing in this column. For example, the selector settings for the 12AT7 are listed as 4572-6183; the selectors are set as follows:

SELECTOR	POSITION NO.
FILAMENT FILAMENT GRID A GRID B PLATE	4 5 7 2 6
SCREEN CATHODE	1 8
SUPPRESSOR	3

- d. BIAS: This column lists the proper settings for the BIAS dial which controls the bias voltage applied to the tube under test.
- e. SHUNT: This column lists the settings for the SHUNT dial which controls the sensitivity of the meter circuit. Adjustment of this dial is only required when the MULTIPLIER switch is in the SH position.
- f. MULT: This column lists the position to which the MULTIPLIER switch should be set to provide the proper meter range for the type of tube under test.
- g. PRESS: This column lists the proper push-button switches to be pressed to complete the various test circuits applicable to the tube under test.

- h. MINIMUM MUT. COND: In this column are the minimum mutual conductance rejection values for amplifier tubes and amplifier sections of multi-purpose tubes. The rejection values for rectifier and detector type diodes are also listed in this column, along with the nominal operating voltage for V.R. tubes.
- i. NOTATIONS: Listed in this column is special information applicable to the tube under test.
- 2. Incorporated into the instruction book is a section containing tube test data on obsolete tube types.

Section 2.2: General Operating Procedures.

A. Preliminary procedures:

1. Remove the line cord from the lead compartment and connect its plug into a power outlet of either 115 volts or 230 volts, 60 cycles, depending upon the mode of operation. See addenda sheet in the front of this manual for correct hook-up of 115 volt operation or 230 volt operation. NEVER CONNECT THIS EQUIPMENT TO A D. C. POWER SOURCE.

CAUTION

DO NOT INSERT TUBE TO BE TESTED INTO TEST SOCKET UNTIL CORRECT SETTINGS OF ALL CONTROLS HAVE BEEN MADE IN ACCORDANCE WITH THE FOLLOWING STEPS.

- 2. Operate the thumb gear which turns the roll chart mechanism until the type number of the tube to be tested appears in the roll chart window. A red index line aids in selecting correct data line from the roll chart.
- 3. Turn the knob of the FILAMENT VOLTAGE switch to the voltage indicated on the roll chart under the heading FIL.
- 4. Set the eight tube pin selector switches in accordance with two groups of four digit numbers appearing in the column headed SELECTORS.

The selector switches are electrically interlocked in such a way that it is impossible to connect two different voltages to the same tube pin at the same time. Accidental shorts are thus avoided.

- 5. Set the BIAS dial to the numerical setting listed on the roll chart under the heading of BIAS.
- 6. Set the SHUNT dial to the numerical setting listed on the roll chart under the heading of SHUNT. If no setting of this dial is required, a short dotted line will appear in the column.
- 7. Set the MULTIPLIER switch to the position indicated on the roll chart.
- 8. Set the LEAKAGE switch to the TUBE TEST POSITION.
- 9. Insert the tube to be tested into the proper test socket, and if applicable make top cap connection as called for in NOTATIONS column of the roll chart.

10. Set the POWER ON-OFF switch to the ON position.

NOTE: ALLOW SUFFICIENT TIME FOR THE TUBE UNDER TEST TO REACH ITS OPERATING TEMPERATURE BEFORE PROCEEDING.

11. LINE TEST: Depress push-button S10 and rotate the LINE ADJUST control until the test meter pointer indicates to the line marked "Line Test".

B. The LEAKAGE TEST procedures.

1. Rotate the LEAKAGE switch from position number 1 through position number 6, while tapping the tube lightly with your finger and watching the test meter for pointer deflection.

Tubes having interelement shorts and leakage paths will cause the meter pointer to move up scale in various positions of the LEAKAGE switch. A momentary deflection of the test meter pointer when the LEAKAGE switch is turned from one position to the next should be disregarded. These meter pointer deflections are caused by the charging of a capacitor in the leakage test circuit. Intermittent meter pointer deflections as a result of tapping the tube indicates loose elements which might cause noisy or erratic tube operation.

A leakage resistance of 10 megohms will cause the meter pointer to begin to indicate. A complete interelement short will cause the pointer to deflect full scale to give a zero ohms reading. The top scale of the meter is the LEAKAGE scale, and it is calibrated in ohms such that the resistance of leakage paths up to 10 megohms can be read directly from the scale.

- 2. A shorted tube or one with excessive interelement leakage should be discarded with no further testing.
- 3. Multisection tubes containing dissimilar sections, such as the 6CG8, should be tested for shorts and leakage on both sections.
- 4. Multisection tubes containing electrically similar sections, such as the 6J6, can make use of the DUAL TEST circuit.

FOR EXAMPLE: For dual triodes make the normal leakage test as described in step 1 of part (B); then depress push-button S8 and repeat the leakage test for the second section.

- 5. Table No. 1: Leakage Test Chart, is to be used for identifying interelement leakage paths. In Table No. 1 an (X) under any LEAKAGE switch position represents a meter pointer deflection in that position; thus by referring to the Leakage Path column of Table No. 1 the defective elements can be identified.
- 6. The circuit used in testing dual triodes is such that the SCREEN selector is used as the plate of the second section, and the SUPPRESSOR selector is used as the cathode of the second section. Thus, plate to plate, and cathode to cathode shorts or leakages will be identified on the Leakage Test Chart as plate to screen, and cathode to suppressor shorts or leakages.
- 7. Some tubes will show a shorted condition on certain positions of the LEAKAGE switch even though they are good tubes. These positions are noted in the NOTATIONS column of the roll chart. That is, "Short on 1 and 2" means that a short indication on positions 1 and 2 is normal.

TABLE NO. I: LEAKAGE TEST CHART

LEAKAGE	LE	EAKAGE	SWIT	GH PO	SITION	15
PATH	ı	2	3	4	5	6
HEATER - CATHODE	x	X				
HEATER-GRID A			X	X	X	
HEATER - GRID B			X	X	X	X
HEATER-SCREEN			X			
HEATER-SUPPR.		X				
HEATER-PLATE			X	X		
CATH GRID A	X	X	X	X	X	
CATH GRID B	X	X	X	X	X	x
CATH SCREEN	X	X	X		,	
CATH SUPPR.	X					
GATH PLATE	x	X	X	X		
GRIDA - GRIDB						X
GRIDA - SCREEN				X	x	
GRID A - SUPPR.		X	X	X	X	
GRID A - PLATE					X	
GRID B - SCREEN				X	X	X
GRID B - SUPPR.		X	X	X	X	x
GRID B - PLATE					×	x
6CREEN - SUPPR.		X	×			
SCREEN - PLATE				X		
SUPPR PLATE		X	×	X		

- C. MUTUAL CONDUCTANCE (Gm) Test: This is the basic quality test for tubes used as amplifiers. After the controls are properly set in accordance with the roll chart data as outlined in Part A of this section, and the tube has been tested for leakage in accordance with Part B of this section, proceed as follows:
 - 1. Set the LEAKAGE switch to the TUBE TEST position.
 - 2. Recheck LINE ADJUST TEST and reset if necessary.
 - 3. Press the Gm push-button S5 and observe the test meter indication.
 - 4. Compare the numerical value of the meter reading on the 0-1500 scale with the minimum acceptable value listed on the roll chart under the column headed MINI-MUM MUT. COND.
 - 5. The meter reading can be read directly in micromhos through the use of the MULTIPLIER setting and the basic 0-1500 micromho scale.

NOTE: On special types of amplifier tubes the push-buttons to be used may vary with the particular tube type under test. Always refer to the roll chart for the correct push-buttons to use.

- D. GAS TEST: The push buttons S6 and S7 are used to test an amplifier tube for gas content. After the tube under test has been tested for Gm proceed as follows:
 - 1. Set the MULTIPLIER switch to the X2 position. This extends the Micromho Scale to the 0-3000 micromho range.
 - 2. Turn the BIAS dial full clockwise to indicate 100.
 - 3. Depress push-button S6 and hold in the down position while adjusting the BIAS dial until the pointer of the meter indicates 100 micromhos on the 0-3000 range.
 - 4. Hold down S6 and depress push-button S7 while observing the meter pointer.
 - 5. If the tube contains gas the pointer of the meter will move up scale. If the pointer movement is not more than two small scale divisions the gas content is negligible.
 - 6. With some tubes, such as the Type 45, the micromho reading cannot be brought down to 100 micromhos by turning the BIAS dial. In such cases turn the BIAS dial clockwise to 100. Test for gas by noting whether the pointer moves more than two divisions up scale when S6 is held down and S7 is depressed.
 - 7. Some tubes will give an indication of gas only after they have been operating for a period of time. If a tube is suspected of being gassy, allow it to heat for a few minutes.
- E. RESERVE LIFE TEST: This test is used to approximate the future life of the tube. After the mutual conductance test has been made as previously described, proceed as follows:
 - 1. Set the MULTIPLIER switch to the SH position.
 - 2. Turn the SHUNT dial full clockwise to indicate 100.

- 3. Depress push-button S5 and hold in down position while adjusting the SHUNT dial until the meter pointer indicates to 1000 on the 0-1500 scale.
- 4. Hold down S5 and depress the LIFE TEST switch. This switch reduces the filament voltage applied to the tube under test.
- 5. If the meter reading remains above mid-scale, the reserve life of the tube under test may be considered satisfactory.
- F. RECTIFIER TUBE TEST: Rectifier tubes, including diode tubes and diode sections of multisection tubes, are tested for emission characteristics since they have no mutual conductance characteristic. The push-button switches S1, S2, and S3 are used to test various types of rectifiers and detector diodes.
 - 1. The push-button switch S1 is used when testing detector diodes. This switch applies a test voltage sufficiently low in magnitude so as not to damage the delicate cathode of the diode under test.
 - 2. The push-button S2 is used when testing cold cathode rectifiers such as the 0Z4. This switch applies a test voltage sufficiently high to ionize the tube and start conduction.
 - 3. The push-button S3 is used when testing rectifier tubes such as 5Y3. This switch applies a test voltage of sufficient magnitude to reveal the defects in this type of tube.
- G. DUAL TEST: For multisection tubes containing electrically similar sections, the notation DUAL TRIODE or DUAL DIODE will appear in the NOTATIONS column of the roll chart. When the dual test is called for, the following procedure is applicable.
 - 1. DUAL TRIODE: After the controls are properly set in accordance with the roll chart data as outlined in Part A of this section, proceed as follows.
 - a. Rotate the LEAKAGE switch from position number 1 through position number 6 and observe the test meter for indications of leakage paths.
 - b. Depress push-button S8 and repeat the leakage test for the second section of the tube.
 - c. Set the LEAKAGE switch to the TUBE TEST position.
 - d. Depress push-button S5 Gm, and observe the test meter for an indication of the Gm of the first section. Release S5.
 - e. A Gas Test for the first section should be performed as described in Part D of this section.
 - f. After the first section has been completely tested, depress push-button S8 and hold in down position while S5 is again depressed and the second section of the tube under test is checked for Gm.
 - h. During testing of each section of a dual triode, the grid of the unused section is kept at cut-off bias by the extra negative bias supply.
 - 2. DUAL DIODE: The testing of dual diodes is performed as described above with two exceptions.

- a. The diode test push-button (S1, S2, or S3) as called for in the PRESS column of the roll chart is to be used in conjunction with S8.
- b. The Gas Test is not applicable to diodes and rectifiers.

H. SPECIAL TUBE TYPES:

1. Voltage Regulator Tubes: The voltage regulator test circuit permits the testing of V. R. tubes under actual operating conditions. The V. R. test circuit measures the voltage drop across the tube under test; hence the striking voltage and the voltage drop for minimum and maximum load currents can be read directly in volts on the test meter.

With the MULTIPLIER switch in the VR position, the VR VOLTAGE dial controls the magnitude of the test voltage applied to the tube. The push-button switch S9 converts the test meter from a voltmeter to a milliammeter. The bottom scale of the meter is used to evaluate the results of the V. R. test. This scale is calibrated in VOLTS (0-200 v. d. c.) and MILS (0-100 ma, dc.).

For example, the 0A3:

- a. Set the FILAMENT voltage switch to the OFF position.
- b. Set the tube pin selector switches to 0000-5020.
- c. Set the MULTIPLIER switch to the VR position.
- d. Turn the VR VOLTAGE control fully counter-clockwise.
- e. Turn the LINE ADJUST control fully clockwise.
- f. Insert the 0A3 into its proper test socket and turn the tester ON.
- g. In the NOTATIONS column for the 0A3 is the voltage value 100V with a star in front of it. This notation represents the approximate starting voltage for the VR tube. In the column MINIMUM MUT. COND. is the voltage value 75V. This represents the nominal operating voltage for the VR tube.
- h. Rotate the VR VOLTAGE control slowly clockwise. The meter pointer should begin to indicate. The voltage value is read on the 0-200 volts scale.
- i. When the meter indicates approximately 100 volts, the tube should fire. This will cause the meter pointer to hesitate and drop back to the operating voltage value of the tube under test. In the case of the 0A3, it is 75V.
- j. Depress push-button S9 V. R. MILS. This converts the test meter from a voltmeter to a milliammeter, and it should indicate approximately 5 MA on the 0-100 MILS scale.
- k. While holding S9 in the down position continue to rotate the VR VOLTAGE control clockwise until the test meter indicates 40 MA.
- 1. Release S9 and read the voltage indicated on the test meter. For a good 0A3 the operating voltage should not have risen more than 5 volts above the nominal operating voltage.

- 2. Certain pentode tubes, such as the 6AJ5, require a low screen voltage and a normal plate voltage during test. This is accomplished by holding down S1 and pressing S5. When applicable, a note is printed on the roll chart under the heading of NOTATIONS: HOLD DOWN S1 AND PRESS S5.
- 3. Cathode-Ray Tube Test. With the use of the Hickok CRT Adapter, magnetic or electrostatic type T.V. picture tubes having a small shell duo-decal base can be given an interelement leakage test, a cathode emission test, a control grid test, and a gas test.
 - a. Preliminary Instructions.
 - (1) Remove the socket from the cathode-ray tube to be tested.

(2) Affix the CRT Adapter to the tube to be tested.

(3) Attach the red lead to the No. 2 anode of the tube under test.

(4) Insert the 8 pin plug on the cable of the CRT Adapter into the octal tube test socket on the main panel of the Model 752A.

- b. Cathode Emission Test.
 - (1) Set the selectors and dials as follows:

FIL	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM MUT.COND.
6. 3	7230-5084	0	75	SH	S1	650

(2) Make an interelement leakage test by rotating the LEAKAGE switch through positions 1 thru 6.

(3) Set the LEAKAGE switch to the TUBE TEST position.

- (4) Depress S1 and observe the test meter indication. A good tube should read above the recommended reject value noted above.
- c. Grid Control and Gas Test.
 - (1) Set the selectors and dials as follows:

FIL	SELECTORS	BIAS	SHUNT	MULT	PRESS
6. 3	7250-3084	*	0 .	SH	S6

(2) Make an interelement leakage test as described above.

(3) Set the LEAKAGE switch to the TUBE TEST position.

- * Hold down S6 and rotate the bias dial. If the control grid is functioning, the meter pointer will move up and down scale.
- (5) Gas Test: Adjust Bias control until the test meter reads one small scale division. Hold down S6 and depress S7.

If the meter pointer moves up-scale more than one division, the tube is gassy.

The Hickok CRT Adapter (Code No. 1050-28) is available through Hickok Distributors.

I. DIODE TESTING:

- 1. Silicon of Germanium Diodes are tested for their rectification quality. To test these types on the Model 752A Tube Tester, proceed as follows:
 - a. Set the FILAMENT switch to the OFF position.
 - b. Set the tube pin selector switches to 0000-6030.
 - c. Set the LEAKAGE switch to the TUBE TEST position.
 - d. Set the BIAS control to 0 (zero).
 - e. Set the MULTIPLIER switch to the SH position.
 - f. Set the SHUNT control to the 65 dial mark.
 - g. Connect the cathode lead of the diode to pin 3 of the octal test socket and the anode lead of the diode to pin 6 of the octal test socket. (If more convenient, the grid and plate leads supplied with the tester may be used to make these connections.
 - h. Place the POWER ON-OFF switch to the ON position and make line test in the usual manner.
 - i. Depress push button S3 and observe the test meter. The test meter reading should be above 650 to indicate a good diode. A zero test meter reading indicates that the diode is either shorted or open. NOTE: If the test meter indicates downscale, reverse the diode leads and repeat this step.

NOTES

CHAPTER III

PARTS LIST

3-1. INTRODUCTION.

Reference designations are assigned to identify all parts of the Model 752A. These designations are used in the Parts List and Schematic Wiring Diagram. The letter prefix of a reference designation indicates the kind of part -- resistor, capacitor, electron tube, etc. The number differentiates between parts in the same group.

Ref. Desig.	Notes	Name and Description	Hickok Part No.	Price Each
A1		DIAL ASSEMBLY: SHUNT	4160-66	. 65
A2		DIAL ASSEMBLY: BIAS	4160-67	. 65
A3		INDEX ROLLER ASSEMBLY	9600-42	7. 20
C1		NOT ASSIGNED		
C2		CAPACITOR, FIXED, PLASTIC: .5 uf, 200 volts	3105-206	. 35
C3		CAPACITOR, FIXED, PLASTIC: .1 uf, 200 Volts	3105-210	. 20
C4		CAPACITOR, FIXED, ELECTROLYTIC: 8 uf, 350 Volts	3085-68	. 75
C5		CAPACITOR, FIXED, ELECTROLYTIC: 50 uf, 6 Volts	3085-45	. 55
C6		CAPACITOR, FIXED, CERAMIC: .005 uf, -0 + 100%, disc type	3110-7	. 20
CR1		RECTIFIER: full wave, copper oxide	18150-42	1.80
CR2		CRYSTAL: SD91	3870-41	. 60
DS1		LAMP: Roll chart, 7 watt, 115 Volts	12270-41	. 15
DS1		LAMP: #1086/10, clear, 10 watt, 230 volt, used on rollchart for 230 volt operation	12270-59	. 65
DS2		LAMP: #51 supplied with meter		
DS3		LAMP: #51, supplied with meter.		
E1		BAR: Shorting	2145-2	. 15
F1		LAMP: #81 auto tungsol, bayonet base (LINE FUSE) for 115 volt operation	12270-2	. 10
F1		LAMP: #63 bayonet base for 230 volt operation	12270-58	. 25
F2		LAMP: #49 pilot, bayonet base, (BIAS FUSE)	12270-17	. 10
M1		METER: Model 68	680-045	17.94
MP1		BUTTON: push, black	2920-7	. 10
MP2		BUTTON: push, red	2920-8	. 10
мр3		BUTTON: push, green	2920-13	. 10
MP4		KNOB: phenolic, black	11505-55	. 15
MP5		Same as MP4		

Ref. Desig.	Notes	Name and Description	Hickok Part No.	Price Each
мР6		Same as MP4		
MP7		Same as MP4		
MP8		Same as MP4		
MP9		Same as MP4		
MP10		Same as MP4		
MP11		Same as MP4		
MP12		Same as MP4		
MP13		Same as MP4		
MP14		Same as MP4		
MP15		Same as MP4		
MP16		KNOB: machined, bar type, with white dot and pointer	11500-11	. 15
MP17		Same as MP1		
MP18		Same as MP1		
MP19		Same as MP1		
MP20		Same as MP1		
MP21		Same as MP1		
MP22	1	Same as MP1		
MP23		Same as MP1		
P1		CORD: AC Line	3675-34	. 80
J1		JACK: pin plug type, red, (PLATE)	10300-1	. 10
J2		JACK: pin plug type, black, (GRID)	10300-2	. 10
J3		BINDING POST	2360-51	. 50
J4		Same as J3		
J5		Same as J2, (CATHODE)		
R1		RESISTOR: 100 ohms, 10%, 10 Watt, center tapped	18575-19	1. 15
R2		RESISTOR, FIXED: 215K ohms, 1%, 1/2 Watt	18537-61	. 55
R3		RESISTOR, FIXED: 270 ohms, 5%, 1/2 Watt	18411-271	. 25
R4		NOT ASSIGNED		
R5		POTENTIOMETER: 50K ohms, screw driver slot	16925-473	1. 00
R6		RESISTOR, FIXED: 200 ohms, 1%, 2 Watt	18540-5	. 95
R7		Same as R1		
R8		RESISTOR, FIXED: 180K ohms, 10%, 1/2 Watt	18414-182	. 10

Ref. Desig.	Notes	Name and Description	Hickok Part No.	Price Each
R9		RESISTOR, FIXED: 2 megohms, 5%, 1/2 Watt	18415-201	. 25
R10		POTENTIOMETER: 500 ohms	16925-376	1.00
R11		RESISTOR, FIXED: 470K ohms, 1%, 1/2 Watt	18537-66	. 55
R12		RESISTOR, FIXED: 470 ohms, 5%, 2 Watt	18431-471	. 50
R13		RESISTOR, SPOOL: 10 ohms	18670-105	1. 00
R14		RHEOSTAT: 10,000 ohms, 50 Watt	18750-26	5. 15
R15		RESISTOR, FIXED: 2920 ohms, 1%, 1/2 Watt	18537-67	. 55
R16		RESISTOR, FIXED: 1200 ohms, 10%, 1 Watt	18422-122	. 20
R17		RESISTOR, FIXED: 1800 ohms, 10%, 10 Watt	18575-12	. 65
R18		RHEOSTAT: 350 ohms, 25 Watt	18750-37	3. 50
R19		RESISTOR, FIXED: 12 ohms, 1%, 1/2 Watt	18537-59	. 65
R20		POTENTIOMETER: 50 ohms	16925-271	1.00
R21		RESISTOR, FIXED: 119 ohms, 1%, 1/2 Watt	18537-62	. 55
R22		RESISTOR, FIXED: 47 ohms, 10%, 1/2 Watt	18410-472	. 10
R23		RESISTOR, FIXED: 41 ohms, 1%, 1/2 Watt	18537-60	. 65
R24		Same as R23		
R25		RESISTOR, FIXED: 15,000 ohms, 5%, 1 Watt	18423-151	. 35
R26		Same as R21		
R27		RESISTOR: wire wound, 8500 ohms, 10%, 10 Watt	18575-89	1. 60
R28		POTENTIOMETER: adjusted, 3000 ohms	16926-5	6. 20
R29 - R30		POTENTIOMETER: 150-150 ohms, wire wound	16925-90	3. 00
R31		RESISTOR, FIXED: 500 ohms, 1%, 1/2 Watt	18537-58	. 55
R32		RESISTOR, FIXED: 250 ohms, 1%, 1/2 Watt	18537-63	. 55
R33		RESISTOR, FIXED: 150 ohms, 1%, 1/2 Watt	18537-64	. 55
R34		RESISTOR, FIXED: 50 ohms, 1%, 1/2 Watt	18537-65	. 65
R35		Same as R34		
R36		RESISTOR, FIXED: 200K ohms, 1%, 1/2 Watt	18537-46	. 55
R37		RESISTOR, FIXED: 1000 ohms, 10%, 1/2 Watt	18412-102	. 10
S1		SWITCH: push type, (DIODE)	19910-132	6. 95
S2		Same as S1 (OZ4)		
S3		Same as S1 (RECT)		
S4		Same as S1 (LOW PLATE)		

Ref. Desig.	Notes	Name and Description	Hickok Part No.	Price Each
S5		Same as S1 (Gm)		
S6		Same as S1 (GAS 1)		
S7		Same as S1 (GAS 2)		
S8		Same as S1 (PLATE 2)		
S9		Same as S1 (VR MILS)		
S10		Same as S1 (LINE ADJ)		
S11		SWITCH: toggle, S. P. S. T.	19911-9	. 50
S12		SWITCH: push button, D. P. D. T. (LIFE TEST)	19910-118	1.50
S13		SWITCH, ROTARY: 2 section, 3 pole, 20 position (FILAMENT)	19912-386	4. 50
S14		SWITCH, ROTARY: 1 section, interlocking, 14 position (FILAMENT)	19912-477	5. 25
S15		Same as S14 (FILAMENT)		
S16		Same as S14 (GRID A)		
S17		Same as S14 (GRID B)		
S18		Same as S14 (PLATE)		
S19		Same as S14 (SCREEN)		
S20		SWITCH, ROTARY: 1 section, 14 position (CATHODE)	19912-469	3. 95
S21		Same as S20		
S22		SWITCH, ROTARY: 5 section, 7 position (MULTIPLIER)	19912-374	5. 25
S23		SWITCH, ROTARY: 5 section, 7 position (LEAKAGE)	19912-373	5. 25
T1		TRANSFORMER: power	20800-304	16. 00
V1		TUBE: #83	20875-28	3. 50
V2		TUBE: #5Y3GT/G	20875-6	1. 75
W1		LEAD ASSEMBLY:	12450-145	. 95
w2		LEAD ASSEMBLY:	12450-180	1. 15
XDS1		SOCKET: bayonet, small	19350-1	. 30
XF1		SOCKET: bayonet, miniature	19350-203	. 35
XF2		SOCKET: Candelabra	19350-2	. 30
XV1		SOCKET: wafer, octal	19350-156	. 25
XV2		SOCKET: wafer, 4 pin	19350-157	. 25
X1		SOCKET: 4 pin	19350-93	. 20
X2		SOCKET: 5 pin	19350-94	. 25

Desig.	Notes	Name and Description	Hickok Part No.	Price Each
Х3		SOCKET: 6 pin	19350-95	. 30
X4		SOCKET: 7 pin	19350-270	. 65
X 5		SOCKET: 8 pin octal	19350-97	. 35
X6		SOCKET: 8 pin, loctal	19350-99	. 30
X7		SOCKET: 7 pin	19350-136	. 65
X 8		SOCKET: Acorn, 7 contact	19350-43	1. 60
Х9		SOCKET: 10 pin	19350-364	. 25
X10		SOCKET: Combination, 7-8 pin	19350-220	. 85
X11		SOCKET: In Line	19351-16	1. 00
X12		SOCKET: Nuvistor, 5 pin	19350-336	. 25
X13		SOCKET: 9 pin	19350-367	. 25
X14		SOCKET: Compactron	19350-365	. 25
X15		SOCKET: Nuvistor, 7 pin	19350-382	. 25
		BOOKLET: INSTRUCTIONS	2490-476	1. 50

NOTE: A minimum billing charge of \$3.50 will be assessed for any parts order. Prices are subject to $\underline{\text{Change}}$ without notice.

CHAPTER IV - SUPPLEMENTARY TEST DATA

Section 4.1: Supplementary Test Data

The following tables provide test data for testing ger-

manium diodes and test data for obsolete vacuum tubes, neither of which appear on the roll chart. All listings are in alpha-numerical order.

TESTING GERMANIUM DIODES ON THE MODEL 752A TUBE TESTER

Two tests only are made on these diodes in the following order:

- 1. Forward conduction and rectification.
- 2. Reverse conduction.

For the Forward Conduction and Rectification test connect the cathode end of the diode to the octal test socket pin No. 3 and connect the other end to the octal test socket pin No. 6. The grid and plate leads supplied with the tester may be used for these connections. If the meter reads backwards, reverse the diode. The diode will then be properly connected for the Reverse Conduction test also.

TUBE	FIL	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT. COND.	NOTATIONS
1N34	OFF	0000-6030	100	60	SH	S3	650	Forward Conduction and
1N34 1N34 i	OFF s OK if	0060-3000 reading is less t	100 han 300.	0	SH	S1		Rectification Reverse Conduction
1N38	OFF	0000-6030	100	67	SH	S3	650	Forward Conduction and Rectification
1N38 1N38 i	OFF s OK if	0060-3000 reading is less t	100 han 125.	0	SH	S1		Reverse Conduction
1N48	OFF	0000-6030	100	67	SH	S3	650	Forward Conduction and Rectification
1N48 1N48 i	OFF s OK if	0060-3000 reading is less t	100 han 550.	0	SH	S1		Reverse Conduction
1N91	OFF	0000-6030	100	68	SH	S3	650	Forward Conduction and Rectification
1N91 1N91 i	OFF s OK if	0060-3000 reading is less t	100 han 750.	0	SH	S1		Reverse Conduction
		8						
1N93	OFF	0000-6030	100	69	SH	S3	650	Forward Conduction and Rectification
1N93 1N93 i	OFF s OK if	0060-3000 reading is less t	100 han 125.	0	SH	S1		Reverse Conduction

MODEL 752A

Supplementary Tube Test Data for Obsolete Tube Types

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT.COND.	NOTATIONS
1A4	2. 0	4100-2300	18		X2		225	CAP=G. Hold down S1 and Press S5
1A6	2. 0	6100-2504	12		X2		225	Pent. Sect. CAP=G Hold down S1 and Press S5
1A6	2.0	6140-3502	25		X1	S5	125	Osc. Sect.
1AB5	1.1	8160-2300	0		X2	S5	375	
1B5	2.0	6150-2000	10		X1	S5	350	Triode Sect.
1B5	2.0	6100-4300	0	40	SH	S1	400	X Dual Diode
1B7	1.4	7200-3405	4		X2		300	Pent. Sect. CAP=G Hold down S1 and Press S5
1B7	1. 4	7250-6403	17		X 2		200	Osc. Sect. Hold down S1 and Press S5
1C6	2. 0	6100-2534	13		X2		250	Ampl. Sect. CAP=G Hold down S1 and Press S5
1C6	2.0	6140-3520	28		X1	S5	150	Osc. Sect.
1C7	2.0	7200-3465	13		X2		250	Pent. Sect. CAP=G
								Hold down S1 and Press S5
1C7	2.0	7250-6430	28		X1	S5	150	Osc. Sect.
1C8	1.1	4520-7608	40		X1	S5	175	
1D7	2. 0	7200-3465	12		X2		225	Pent. Sect. CAP=G Hold down S1 and Press S5
1D7	2.0	7250-6430	25		X1	S5	125	Osc. Sect.
1D8	1. 4	7250-3460	18		X2		275	Pent. Sect. Hold down S1 and Press S5
1D8	1.4	7200-6000	0		X1	S5	350	Triode Sect. CAP=G
1D8	1.4	7200-8000	0	0	SH	S1	400	Diode Sect.
1E4	1.4	7250-3000	25		X2	S5	375	
1E5	2.0	7200-3400	15		X1	S5	400	CAP=G
1E7	2. 0	7250-6834	11		X2	S5	350	Pent. No. 1
1E7	2.0	7240-3865	11		X2	S5	350	Pent. No. 2
1F4	2. 0	5130-2400	22		X2	S5	425	
1F5	2.0	7250-3400	22		X2	S5	425	
1F6	2. 0	6100-2300	8		X2		200	Pent. Sect. CAP=G Hold down S1 and Press S5
1F6	2. 0	6100-5400	8	0	SH	S1	400	X Dual Diode
1F7	2. 0	7200-3600	8		X2		200	Pent. Sect. CAP=G Hold down S1 and Press S5
1F7	2.0	7200-4530	8	0	SH	S1	400	X Dual Diode
1G4	1. 4	7250-3000	48		X2	S5	250	2 Dam 2000
1G5	2. 0	7250-3040	16		X2		475	Hold down S1 and Press S5
1G6	1. 4	7254-6300	19		X2	S5	1	X Dual Triode
1H4	2. 0	7250-3000	40		X2	S5	275	
1J5	2.0	7250-3400	46		X2	S5	300	
1J6	2.0	7254-6300	23		X2	S5	300	X Dual Triode
1LB6	1.4	8160-2437	Use	this setti	ng for Sh	ort Check	only	
1LB6	1.4	8160-3574	22		X1	S5	300	
1N6	1.4	7250-3400	40		X2	S5	250	Pentode Sect.
1N6	1.4	7200-6000	0	0	SH	S1	400	Diode Sect.
1P5	1.4	7200-3400	12		X2	S5	250	CAP=G
1R4	1.4	8100-4070	0	48	SH	S1	400	
1SA6	1.4	7240-8630	0		X2		250	Hold down S1 and Press S5
1SB6	1.4	7280-3400	12		X1	S5	400	Pentode Sect.
1SB6	1.4	7280-5000	0	0	SH	S1	400	Diode Sect.
1T5	1.4	7250-3400	44		X2	S5	350	
2A4	2. 5	7250-3000	#	93	SH	S6	650	Strikes at about 44
2A5	2.5	6140-2350	23		X2	S5	625	
2A6	2.5	6100-2050	11		X4	S5	175	Triode Sect. CAP=G
2A6	2.5	6100-4350	11	32	SH	S1	400	X Dual Diode
2A7	2.5	7100-2365	0		X2	S4	300	Pent. Sect. CAP=G
2A7	2.5	7150-4362	22	02	X1	S5	225	Osc. Sect.
2B4 2B6	2. 5 2. 5	5130-2040 7140-2360	# 18	93	SH X2	S6 S5	650 475	Strikes at about 58

MODEL 752A

Supplementary Tube Test Data for Obsolete Tube Types

Type			PF					ctc ruse ryp	
2C22		FIL	SELECTORS	BIAS	SHUNT	MULT.	PRESS		NOTATIONS
2C22	0000		7000 0000		20	CIT	CO	650	To Worker D
CC26									
C2C6					1				
2C26	2C22	6.3	7200-0080	23		X4	S5	475	
CAP									
2C40	2C26	6.3	7200-0080	13		X2	S5	550	
ZE5									
ZE5	2C40	6.3	7200-0080	20		X4	S5	425	CAP = P. Ring = G
225	2E5	2. 5	6150-4030	0	100	SH	S5		
2V3				0	100				
200								650	
222					L .				
3A8 2, 5 7200-3400 17 X2 S5 225 Pentode Sect. CAP= G 3A8 2, 5 7200-8000 0 X1 S5 175 Triode Sect. Diode Sect. 3B7 2, 5 1250-3400 33 X2 S4 425 3B7 2, 5 1850-6000 10 X2 S5 475 Triode No. 1 3C6 2, 5 1850-6000 10 X2 S4 350 Triode No. 1 5AX4 5. 0 8200-6000 10 X2 S4 350 Triode No. 1 5AX4 5. 0 8200-6000 0 36 SH S3 400 Plate No. 2 5X3 5. 0 4100-3000 0 37 SH S3 400 Plate No. 1 5X3 5. 0 4100-3000 0 100 SH S5 Eye Closed 6AB5 6. 3 6150-423		1		1					
3AB 2.5 7200-8000 0 X1 S5 175 Triode Sect. 3BB 2.5 7250-3400 33 X2 S4 425 3B7 2.5 1860-7000 27 X2 S5 475 Triode No. 1 3B7 2.5 1850-6000 10 X2 S4 350 Triode No. 2 3C6 2.5 1840-3000 10 X2 S4 350 Triode No. 2 5AX4 5.0 3200-4000 0 36 SH S3 400 Plate No. 1 5X3 5.0 4100-2000 0 34 SH S3 400 Plate No. 1 5X3 5.0 4100-2000 20 SH S3 400 Plate No. 2 6AB5 6.3 6150-4230 0 100 SH S5 Eye Copen 6AB6 6.3 7250-3480 0				-	1				Dontodo Cost CAD-C
3AB 2.5 720-8000 0 32 SH SI 400 Diode Sect. 3BF 2.5 17250-3400 33 X2 S5 475 Triode No. 1 3BF 2.5 1830-2000 10 X2 S4 475 Triode No. 2 3C6 2.5 1850-6000 10 X2 S4 350 Triode No. 1 5AX4 5.0 8200-6000 0 36 SH S3 400 Plate No. 1 5X3 5.0 4100-3000 0 27 SH S3 400 Plate No. 1 5X3 5.0 4100-3000 0 20 SH S3 400 Plate No. 2 6AB5 6.3 6150-4030 0 100 SH S5 Eye Closed 6AB6 6.3 7250-3480 0 X2 85 450 6AD6 6.3 72250-3480 0									
3B5					T .				
SBT					l .				Diode Sect.
3BF									
3C6	3B7	2.5	1860-7000						Triode No. 1
366 2.5 \$140-3000 10 X2 S4 350 Triode No. 2 5AX4 5.0 \$200-6000 0 27 SH S3 400 Plate No. 1 5X3 5.0 4100-3000 0 34 SH S3 400 Plate No. 2 5X3 5.0 4100-3000 0 20 SH S3 400 Plate No. 2 6A4 6.3 5130-2400 28 X2 S5 625 6AB5 6.3 6150-4230 0 100 SH S5 Eye Open 6AD6 6.3 7250-3480 0 X2 S5 750 6AE5 6.3 7250-3480 0 100 SH S5 Eye 1 Open, Eye 2 Closed 6AE5 6.3 7250-3080 72 X2 S5 375 6AE7 6.3 7250-3084 X2 S5 475 <td< td=""><td>3B7</td><td>2.5</td><td>8130-2000</td><td>27</td><td> </td><td>X2</td><td>S5</td><td>475</td><td>Triode No. 2</td></td<>	3B7	2.5	8130-2000	27		X2	S5	475	Triode No. 2
366 2.5 \$140-3000 10 X2 S4 350 Triode No. 2 5AX4 5.0 \$200-6000 0 27 SH S3 400 Plate No. 1 5X3 5.0 4100-3000 0 34 SH S3 400 Plate No. 2 5X3 5.0 4100-3000 0 20 SH S3 400 Plate No. 2 6A4 6.3 5130-2400 28 X2 S5 625 6AB5 6.3 6150-4230 0 100 SH S5 Eye Open 6AD6 6.3 7250-3480 0 X2 S5 750 6AE5 6.3 7250-3480 0 100 SH S5 Eye 1 Open, Eye 2 Closed 6AE5 6.3 7250-3080 72 X2 S5 375 6AE7 6.3 7250-3084 X2 S5 475 <td< td=""><td>3C6</td><td>2.5</td><td>1850-6000</td><td>10</td><td></td><td>X2</td><td>S4</td><td>350</td><td>Triode No. 1</td></td<>	3C6	2.5	1850-6000	10		X2	S4	350	Triode No. 1
5AX4 5.0 8200-6000 0 36 SH S3 400 Plate No. 1 5AX4 5.0 8200-4000 0 27 SH S3 400 Plate No. 2 5X3 5.0 4100-2000 0 20 SH S3 400 Plate No. 1 6AB5 6.3 6150-4230 0 100 SH S5 Ege Open 6AB6 6.3 6150-4230 0 100 SH S5 Eye Closed 6AB6 6.3 7250-3480 0 X2 S5 450 6AB6 6.3 7250-3480 0 X2 S5 450 6AB6 6.3 7250-380 0 100 SH S5 Eye Closed 6AB6 6.3 7250-3080 72 X2 S5 225 Triode No. 2 6AB7 6.3 7260-3084 0 X2 S5 475 <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			1						
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6AX6 6.3 7200-5384 0 58 SH S3 650 X Dual Diode 6B5 6.3 6140-2350 0 X2 S5 525 6B6 6.3 7200-5480 11 X4 S5 175 Triode Sect. CAP=G 6B8 6.3 7200-5481 12 X2 S5 300 Pent. Sect. CAP=G 6B8 6.3 7200-5481 22 32 SH S1 400 X Dual Diode 6C7 6.3 7100-2060 26 X2 S5 375 Triode Sect. CAP=G 6C7 6.3 7100-2460 26 30 SH S1 400 X Dual Diode 6C8 6.3 7250-3648 15 X2 S5 500 X Dual Diode 6D5 6.3 7250-3080 57 X2 S5 500 X Dual Triode CAP=G 6D7 6.3 7100-2364 </td <td>6AW7</td> <td>6.3</td> <td>7800-3451</td> <td>0</td> <td>76</td> <td>SH</td> <td>S1</td> <td>400</td> <td>X Dual Diode</td>	6AW7	6.3	7800-3451	0	76	SH	S1	400	X Dual Diode
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6B6 6.3 7200-3080 11 X4 S5 175 Triode Sect. CAP=G 6B6 6.3 7200-5480 11 32 SH S1 400 X Dual Diode 6B8 6.3 7200-5481 22 X2 S5 300 Pent. Sect. CAP=G 6B8 6.3 7200-5481 22 32 SH S1 400 X Dual Diode 6C7 6.3 7100-2060 26 X2 S5 375 Triode Sect. CAP=G 6C7 6.3 7100-2460 26 30 SH S1 400 X Dual Diode 6C8 6.3 7205-3648 15 X2 S5 500 X Dual Diode 6D7 6.3 7100-2364 21 X2 S5 625 6D8 6.3 7250-3808 57 X2 S4 300 Pent. Sect. CAP=G 6D8 6.3 7250-6483 <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td>					1				
6B6 6.3 7200-5480 11 32 SH S1 400 X Dual Diode 6B8 6.3 7200-3681 22 X2 S5 300 Pent. Sect. CAP=G 6B8 6.3 7200-5481 22 32 SH S1 400 X Dual Diode 6C7 6.3 7100-2060 26 X2 S5 375 Triode Sect. CAP=G 6C7 6.3 7100-5460 26 30 SH S1 400 X Dual Diode 6C8 6.3 7205-3648 15 X2 S5 500 X Dual Diode 6D5 6.3 7250-3648 15 X2 S5 500 X Dual Triode CAP=G 6D8 6.3 7200-3485 0 X2 S4 300 Pent. Sect. CAP=G 6D8 6.3 7250-6483 22 X1 S5 225 Osc. Sect. 6E6 6.3 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td>Triode Sect. CAP-G</td>						•			Triode Sect. CAP-G
6B8 6.3 7200-3681 22 X2 S5 300 Pent. Sect. CAP=G 6B8 6.3 7200-5481 22 32 SH S1 400 X Dual Diode 6C7 6.3 7100-2660 26 30 SH S1 400 X Dual Diode 6C7 6.3 7100-5460 26 30 SH S1 400 X Dual Diode 6C8 6.3 7205-3648 15 X2 S5 500 X Dual Triode CAP=G 6D5 6.3 7250-3080 57 X2 S5 625 6D7 6.3 7100-2364 21 X2 S4 300 Pent. Sect. CAP=G 6D8 6.3 7250-6483 22 X1 S5 225 Osc. Sect. 6E6 6.3 7153-6240 51 X2 S5 500 CAP=G 6G5 6.3 6150-4030 <td< td=""><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td><td></td></td<>					1				
6B8 6. 3 7200-5481 22 32 SH S1 400 X Dual Diode 6C7 6. 3 7100-2060 26 X2 S5 375 Triode Sect. CAP=G 6C7 6. 3 7100-5460 26 30 SH S1 400 X Dual Diode 6C8 6. 3 7205-3648 15 X2 S5 500 X Dual Triode CAP=G 6D5 6. 3 7250-3080 57 X2 S5 625 6D7 6. 3 7100-2364 21 X2 S5 375 CAP=G 6D8 6. 3 7250-6483 22 X1 S5 225 Osc. Sect. 6E6 6. 3 7153-6240 51 X2 S5 500 CAP=G 6E7 6. 3 6150-4030 0 100 SH S5 Eye Open 6G5 6. 3 6150-4230 0 <td></td> <td></td> <td>ł .</td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td>			ł .		1				
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6D8 6.3 7250-6483 22 X1 S5 225 Osc. Sect. 6E6 6.3 7153-6240 51 X2 S5 425 X Dual Triode 6E7 6.3 7100-2364 17 X2 S5 500 CAP= G 6G5 6.3 6150-4030 0 100 SH S5 Eye Open 6G5 6.3 6150-4230 0 100 SH S5 Eye Closed 6H4 6.3 7200-4080 0 73 SH S1 400 6K5 6.3 7200-3080 15 X4 S5 225 CAP= G 6N5 6.3 6150-4030 0 100 SH S5 Eye Open	6D8	6.3	7200-3485	0		X2	S4	300	Pent. Sect. CAP=G
6E6 6. 3 7153-6240 51 X2 S5 425 X Dual Triode 6E7 6. 3 7100-2364 17 X2 S5 500 CAP= G 6G5 6. 3 6150-4030 0 100 SH S5 Eye Open 6G5 6. 3 6150-4230 0 100 SH S5 Eye Closed 6H4 6. 3 7200-4080 0 73 SH S1 400 6K5 6. 3 7200-3080 15 X4 S5 225 CAP= G 6N5 6. 3 6150-4030 0 100 SH S5 Eye Open				22	2 000 Min task				
6E7 6.3 7100-2364 17 X2 S5 500 CAP=G 6G5 6.3 6150-4030 0 100 SH S5 Eye Open 6H4 6.3 7200-4080 0 73 SH S1 400 6K5 6.3 7200-3080 15 X4 S5 225 CAP=G 6N5 6.3 6150-4030 0 100 SH S5 Eye Open									
6G5 6.3 6150-4030 0 100 SH S5 Eye Open 6G5 6.3 6150-4230 0 100 SH S5 Eye Closed 6H4 6.3 7200-4080 0 73 SH S1 400 6K5 6.3 7200-3080 15 X4 S5 225 CAP=G 6N5 6.3 6150-4030 0 100 SH S5 Eye Open			1		1				
6G5 6.3 6150-4230 0 100 SH S5 Eye Closed 6H4 6.3 7200-4080 0 73 SH S1 400 6K5 6.3 7200-3080 15 X4 S5 225 CAP=G 6N5 6.3 6150-4030 0 100 SH S5 Eye Open					1				
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6K5 6.3 7200-3080 15 X4 S5 225 CAP=G 6N5 6.3 6150-4030 0 100 SH S5 Eye Open			1	1		1			Eye Closed
6N5 6.3 6150-4030 0 100 SH S5 Eye Open			1	-	1				CAR
					1			į .	
6N5 6.3 6150-4230 0 100 SH S5 Eye Closed			1		3				
	6N5	6.3	6150-4230	0	100	SH	S5		Eye Closed

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TUBE TYPE	FIL	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT.COND.	NOTATIONS
6N6	6.3	7250-3480	0		X2	S5	525	
6P7	6. 3	2300-4586	18		X2	S5	350	P ent. Sect. CAP=G
6P7	6. 3	2370-6084	35		X2	S5	150	Triode Sect. CAP=G
6Q6	6.3	7200-3080	13		X2 X2	S5		
6Q6	6.3	7200-5480					300	Triode Sect. CAP=G
			13	30	SH	S1		X Dual Diode
6SZ7	6.3	7820-6031	15		X4	S5	175	Triode Sect.
6SZ7	6.3	7800-5431	0	30	SH	S1	1	X Dual Diode
6T5	6. 3	6150-4030	0	100	SH	S5		Eye Open
6T5	6. 3	6150-4230	0	.100	SH	S5		Eye Closed
6T7	6.3	7200-3080	13		X2	S5	300	Triode Sect. CAP=G
6T7	6. 3	7200-5480	13	30	SH	S1	400	X Dual Diode
6U7	6.3	7200-3485	17		X2	S5	500	CAP= G
6V7	6. 3	7200-3080	42		X2	S5	300	Triode Sect. CAP=G
6V7	6.3	7200-5480	42	30	SH	S1	400	X Dual Diode
6W5	6. 3	7200-5380	0	20	SH	S3	650	X Dual Diode
6W7	6.3	7200-3485	21		X2	S5	375	CAP=G
6Y5	6.3	6100-5340	0	58	SH	S3		X Dual Diode
6Y7	6. 3	7254-6380	13		X2	S5		X Dual Triode
6Z7	6. 3	7254-6380	14		X2	S5		X Dual Triode
7AB7	6. 3	7250-3140	10		X4	S5	250	Duai 1110de
7AJ7	6. 3	8160-2374	8		X4	S5	350	
7B5	6.3	8160-2370	17		X4	S5	375	
7B6	6. 3	8130-2070	11		X4	S5	175	Triode Sect.
7B6	6.3	8100-6572	0	30	SH	S1		X Dual Diode
7B8	6.3	8160-2574	0		X2	S4	300	Pent. Sect.
7B8	6.3	8140-3576	22		X1	S5	225	Osc. Sect.
7C4	6. 3	8100-4070	0	70	SH	S1	400	
7G8	6. 3	8150-7362	11		X4	S5	325	Tetrode No. 1
7G8	6. 3	8140-2367	11		X4	S5	325	Tetrode No. 2
757	6. 3	8160-2574	16		X2	S5	475	Heptode Sect.
757	6. 3	8140-3075	14		X2	S5	525	Triode Sect.
7T7	6. 3	8160-2374	10		X4	S5	475	l 1110de bect.
			ž.	1				50 A A A A A A A A A A A A A A A A A A A
10	7.5	4130-2000	44		X2	S5	375	
10Y	7.5	4130-2000	44		X2	S5	375	
12A	5.0	4130-2000	48		X2	S5	525	
12A5	12. 6	7140-2350	38		X2	S5	550	
12A6	12. 6	7250-3481	18		X4	S5	475	
12B8	12.6	7200-3410	18		X4	S5	275	Pent. Sect. CAP=G
12B8	12.6	7280-5060	7		X4	S5	300	Triode Sect.
12F5	12. 6	7200-4080	12		X4	S5	225	CAP=G
12SW7	12.6	7820-6031	21		X2	S5	600	Triode Sect.
12SW7	12.6	7800-5436	0	30	SH	S1	400	X Dual Diode
12SX7	12.6	7841-5263	23		X4	S5	400	X Dual Triode
12SY7	12. 6	7280-3465	10		X4		150	Ampl. Sect. Hold down S1 and Press S5
12SY7	12.6	7250-4068	22		X4	S5	625	Osc. Sect.
12Z3	12. 6	4100-2030	0	35	SH	S3	650	
12Z5	6. 3	6100-5040	o	30	SH	S3	650	Plate No. 1
12Z5	6. 3	2100-3040	l o	30	SH	S3	650	Plate No. 2
			23		X4	S5	400	1 tate No. 2
14A4	12.6	8160-2070			1			
14A5	12.6	8160-2370	18		X4	S5	475	D 4 G 4
14E7	12.6	8160-2570	20		X4	S5	200	Pent. Sect.
14E7	12.6	8100-4372	0	30	SH	S1	400	X Dual Diode
14Z3	12.6	4100-2030	0	35	SH	S3	650	
15	2. 0	5100-2340	0		X2		225	CAP=G. Hold down S1 and Press S5
19	2.0	6143-5200	23		X2	S5	300	X Dual Triode
RK20A	7.5	5130-0240	0		X2	S5	625	CAP= P
22	3. 0	4100-2300	0		X1	S5	300	CAP= G
24A	2.5	5100-2340	25		X2	S5	300	CAP= G
			44		X2 X2	S5	375	3711 - 0
VT25A	7.5	4130-2000			X2	S5	550	Pent. Sect.
25A7	25. 0	7250-3486	32	40				Rect. Sect.
25A7	25.0	7200-6013	0	40	SH	S3	650	Rect. Sect.

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				,			ete Tube Typ	
TUBE TYPE	FIL	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT.COND.	NOTATIONS
25AC5	25. 0	7250-3080	0		X2	S5	475	
25B5	25. 0	6140-2350	o		X2	S5	625	
25B6	25. 0	7250-3480	20		X10	S4	300	
25B8	25. 0	7200-3410	18		X4	S5	275	Pent. Sect. CAP=G
25B8	25. 0	7280-5060	7		X4	S5	300	Triode Sect.
25D8	25. 0	7200-3410	18		X4	S5	300	Pent. Sect. CAP=G
25D8	25. 0	7250-6010	12		X4	S5	175	Triode Sect.
25D8	25. 0	7200-8010	12	53	SH	S1	400	Diode Sect.
25N6	25. 0	7250-3480	0		X2	S5	625	
25T	6. 3	4130-0000	0		X2	S5	275	CAP= P
25Y5	25. 0	6100-5243	0	30	SH	S3	650	▼ Dual Diode
25Z3	25. 0	6100-5243	0	30	SH	S3	650	X Dual Diode
25Z4	25. 0	7200-5080	0	50	SH	S3	650	
25Z5	25. 0	6100-5243	0	30	SH	S3	650	▼ Dual Diode
26	1.4	4130-2000	39		X2	S5	350	
27	2. 5	5130-2040	41		X2	S5	300	
30	2. 0	4130-2000	43		X2	S5	275	
31	2. 0	4130-2000	41		X2	S5	275	
32L7	35. 0	7250-3480	16		X10	S4	300	Pent. Sect.
32L7	35. 0	7200-6013	0	45	SH	S3	650	Rect. Sect.
33	2. 0	5130-2400	27		X2	S5	400	
RK33	6. 3	7104-3526	35		X2	S5	425	X Dual Triode. CAP=G
34	2. 0	4100-2300	16		X2		175	CAP=G. Hold down S1 and Press S5
35	2, 5	5100-2340	20		X2	S5	300	CAP=G
35A5	35. 0	8160-2370	0		X10	S4	300	
35Z4	35.0	7200-5080	0	50	SH	S3	650	
35Z6	35. 0	7200-5384	0	50	SH	S3	650	▼ Dual Diode
36	6.3	5100-2340	31		X2	S5	325	CAP=G
37	6.3	5130-2040	42		X2	S5	275	
38	6. 3	5100-2340	35		X2	S5	325	CAP=G
39/44	6. 3	5100-2340	25		X2	S5	300	CAP=G
40	5.0	4130-2000	20		X1	S5	125	
40Z5	50.0	7200-5080	0	53	SH	S3	650	
41	6. 3	6140-2350	17		X4	S5	375	
42	6.3	6140-2350	23		X2	S5	625	
43	25. 0	6140-2350	18		X4	S5	350	
45Z3	50.0	7100-2040	0	44	SH	S3	650	
45 Z 5	50.0	7200-5080	0	53	SH	S3	650	
46	2. 5	5130-2400	0		X2	S5	625	
47	2. 5	5130-2400	0		X2	S5	625	
48	25. 0	6140-2350	45		X2	S5	625	
49	2.0	5130-2400	49		X2	S5	350	
50	7. 5	4130-2000	60		X2	S5	475	
50Y6	50.0	7200-5384	0	45	SH	S3	650	X Dual Diode
50Z7	50. 0	7200-5384	0	45	SH	S3	650	X Dual Diode
51/51S	2. 5	5100-2340	20		X2	S5	325	CAP=G
HD51	OFF	0000-5020			VR	S9	150 V.	(155V. Regulation = 2 Volts (from 5 to 30 MA
57A	6. 3	6100-2354	21		X2	S5	375	CAP=G
58A/58AS	6. 3	6100-2354	17		X2	S5	500	CAP= G
VT67	2. 0	4130-2000	43	~~~	X2	S5	275	
HY65	6. 3	7250-0408	0		X4	S5	425	CAP= P
HY69	6.3	5130-0240	0		X4	S5	475	CAP= P
70A7	75. 0	7250-3480	80		X4	S5	475	Pent. Sect.
70A7	75. 0	7200-1000	0	58	SH		650	Rect. Sect. Reverse Meter Hold down S7 and Press S3
71A	5.0	4130-2000	69		X2	S5	525	
79	6.3	6103-5240	13		X2	S5	300	X Dual Triode. CAP=G
81	7. 5	4100-2000	0	0	SH	S3	400	
82	2. 5	4100-3200	0	55	SH	S3	650	X Dual Diode
85	6. 3	6100-2050	42		X2	S5	300	Triode Sect. CAP=G
85	6.3	6100-4352	42	30	SH	S1	400	▼ Dual Diode

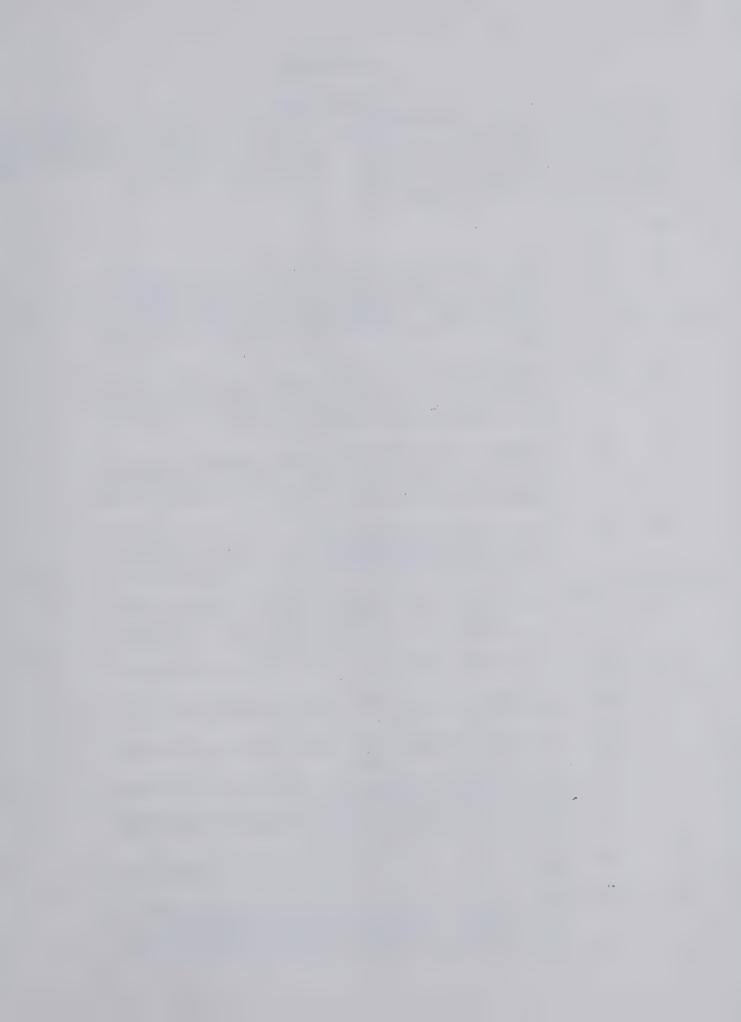
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Supplementary Tube Test Data for Obsolete Tube Types

							tere Tube Type	
TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT.COND.	NOTATIONS
85AS	6.3	6100-2050	26		X2	S5	375	Triode Sect. CAP=G
85AS	6.3	6100-4352	26	30	SH	S1		X Dual Diode
99	3.0	4130-2000	20		X1	S5	250	a Sual Diode
112A	5. 0	4130-2000	48		X2	S5	525	
CK113	50. 0	7250-3486	32		X2	S5	550	Pent. Sect.
CK113	50. 0	7200-6013	0	40	SH	S3	650	Rect. Sect.
HY114	1.4	7200-0000	22		X2	S5	350	Right CAP= P.
		1200 0000			1			Left CAP=G
117Z4	117.0	7200-5080	0	50	SH	S3	650	Helt offi - a
183	5. 0	4130-2000	79		X2	S5	475	
244A	2. 0	5130-2040	42		X2	S5	150	
257A	3.0	4100-2000	16		X1	S5	300	CAP= G
259A	2. 0	5100-2340	19		X2	S5	250	CAP=G
264C	1.4	4130-2000	20		X1	S5	300	0711 = 0
271A	5. 0	5130-2040	32	~	X4	S5	400	
283A	2. 0	5100-2340	28		X2	S5	300	CAP=G
285A	2. 0	5100-2340	31		X2	S5	300	CAP= G
310A	10.0	6100-2354	20		X2	S5	475	CAP=G
311A	10.0	5100-2340	31		X2	S5	700	CAP= G
482A	5. 0	4130-2000	79		X2	S5	475	CAF-U
482B	5.0	4130-2000	58		X2	S5	475	
483	5.0	4130-2000	79		X2	S5	475	
		1	37	1		S5	400	
485	3.0	5130-2040			X2		100	
CK505AX	0.6	3540-1200	17		X1 SH	S5 S6		Cost No. 1
CK510AX	0.6	4710-2306	0	0	SH	S6	50 50	Sect. No. 1 Sect. No. 2
CK510AX		4760-5301	26		X2	S5	500	Sect. No. 2
CK556AX CK568AX	1.1	4230-1000 4230-1000	38		X2	S5	200	
CK569AX	1.1	3540-1200	8		X1	S5	525	
CK509AX CK571AX	1.1	3470-1200	57		X1	S5	100	
		4	34		X2	S5	625	
CK573AX CK574AX	1.1	2430-1000	15		X1	S5	100	
CK605CX	6.3	3540-1200 3470-1265	10		X4	S5	675	
				80	SH		400	
CK606BX	6.3	2300-1040	0 22			S1	300	
CK608CX CK619CX	6.3	3450-1060	7		X10 X10	S5 S5	250	
	6. 3	2340-1050	8		X4	S5	475	
717A 814	10.0	7240-8631 5130-0240	Ô		X2	S5	750	CAP= P. Fuse lamp will
014	10.0	3130-0240			A	50	130	glow brightly.
SD828A	6.3	4630-1520	22		X4	S5	300	grow brightry.
SD828E	6.3	4630-0512	12		X10	S5	325	TOP LEAD = P
834	7.5	4100-0000	0		X2	S5	525	Near CAP=G; Far CAP=P
SD917A	6.3	3420-1050	10		X4	S4	425	Near Office, Par Office
SN944	6.3	4630-0512	12		X4	S5	375	Top Lead = P
SN946B	6. 3	2300-1040	0	80	SH	S1	400	100 21000 - 1
SN947D	6.3	3610-5780	44		X10	S5	300	
SN947D SN949C	6.3	3670-1052	#	50	SH	S3	650	Strikes at about 78
SN953D	6.3	3610-5720	15		X10	S5	350	Strikes at about 10
			0	0	SH	S3	650	
SN954 SN954B	6.3	4200-1030 3600-2050	0	0	SH	S3	650	,
SN954B SN956B	1.1	1200-0000	0		X1	S3	400	Top Lead = P. Connect
DIAGOOD	1.1	1200-0000			Ai	50	100	Fil. leads to Pins 1 and 2
SN957A	6. 3	5340-1020	25		X4	S5	425	III. Icado to I his I and 2
SN977A SN972D	6.3	3610-5740	13		X4	S5	475	
SN973B	6.3	3610-5740	16		X4	S5	475	
SN976C	6.3	3610-5780	44		X10	S5	300	
SD993C	6.3	3610-3780	19		X10 X10	S5	300	
SD995B	6.3	3610-5030	13		X4	S5	475	
FM1000	6.3	8120-4536	0		X2	S5	225	Grid No. 1
FM1000	6.3	8160-4532	0		X2	S5	275	Grid No. 2
1005	6.3	6800-3050	0	93	SH	S6	650	Plate No. 1
1005	6, 3	6800-5030	0	93	SH	S6	650	Plate No. 2
SN1006	6.3	5340-1200	9		X4	S4	225	
DIVIOU	0.0	0010-1200			42.7	~ ~		

MODEL 752A
Supplementary Tube Test Data for Obsolete Tube Types

TUBE		1					MIN.	
TYPE	FIL	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MUT. COND.	NOTATIONS
CK1027	OFF	0000-4070	0	91	SH	S6	650	CAP= P
E1148	6.3	7200-0080	12		X4	S5	350	Upper CAP= P
	}							Lower CAP=G
1247	0.6	4500-0000	0	0	SH	S1	400	Top Lead = P
HY1269	12. 6	5130-0240	0		X10	S5	275	CAP= P. Short on 1-2
1291	2.5	1860-7000	27		X2	S5	475	Triode No. 1
1291	2. 5	8130-2000	27		X2	S5	475	Triode No. 2
1602	7.5	4130-2000	44		X2	S5	375	
1616	4.3	4100-0000	0	30	SH	S2	650	CAP= P
1625	12.6	7140-0360	28		X4	S5	600	CAP= P
1626	12.6	7250-3080	46		X2	S5	650	
1629	12.6	7250-4080	0	100	SH	S5		Eye Open
1629	12. 6	7250-4380	0	100	SH	S5		Eye Closed
1641	5.0	4100-0000	0	28	SH	S3	650	Left CAP= P
1641	5. 0	1400-0000	0	28	SH	S3	650	Right CAP= P
1650	6.3	6140-3070	24		X2	S5	600	
1654	1.4	1700-0000	0	67	SH	S6	650	CAP= P
5517	OFF	0000-4070	0	40	SH	S2	650	CAP= P
5591	6.3	4310-5620	10		X4	S5	675	
5603	6.3	2740-8623	42		X4	S5	625	
5608A	2. 5	7153-6240	17		X2	S5	475	X Dual Triode
5823	OFF	0000-1030	0	91	SH	S6	650	Place a 1 megohm 1/2 watt
								resistor across pins 1 and
								4 in Loctal socket
5901	6.3	3610-5740	16		X4	S5	475	
7193	6. 3	7200-0080	23		X4	S5	475	Far Cap = G
								Near Cap = P
8005	10.0	4130-0000	0		X4	S5	400	CAP= P
38142	7.5	4130-2000	37		X2	S5	625	
XXB	2. 5	1850-6000	10		X2	S4	350	Triode No. 1
XXB	2. 5	8140-3000	10		X2	S4	350	Triode No. 2
XXD	12.6	8154-6372	27		X4	. S5		X Dual Triode
XXFM	6. 3	8130-2040	11		X4	S5	150	Triode Sect.
XXFM	6.3	8100-5647	0	77	SH	S1	400	X Dual Diode
XXL	6.3	8160-2070	23		X4	S5	400	



ADAPTERS

for

TUBE TESTERS

As new tube types with new basing arrangements are developed, Hickok makes Adapters to accommodate them. These Adapters consist of the new bases which plug into a socket on your Tube Tester and thus enlarge its scope to the extent of the new basings. This Hickok policy greatly extends the useful life of your Tester. Consult the following list of Adapters with

Model

Code

their descriptions to determine which Adapter meets your requirements. Please order by both Model and Code number of the Adapter, as well as indicating the Model and Serial number of the Tube Tester with which the Adapter is to be used.

No.	No.	
CA-5	1050-164	Adapter - Latest Tube Bases: This adapter provides tube test sockets for Compactrons, Novars, 5 and 7-pin Nuvistors and the new 10-pin tubes, including Decals. Three selector switches provide selection of tube elements on the latest based tubes and a permanently attached lead provides for top cap tube connections. The adapter is supplied with a connecting cable ter-
		minating in a Noval plug which is plugged into the tube tester Noval test socket.
SA-1	1050-94	Subminiature Adapter, with sockets for testing 7-pin inline and 8-pin round tube types on some early units of Models 539B, 539C, 580, 750, 752, 752A, 6000, 6000A and 6005 Tube Testers that were not supplied with these sockets on their panels, although most of the above Testers are equipped with these sockets. Check your particular Tester before ordering.
SA-2	1050-99	Subminiature Adapter, with sockets for testing 7-pin inline and 8-pin round tube types on some early units of Models 533A, 600A, 800, 800A and 1575 Tube Testers that were not supplied with these sockets on their panels, although most of the above Testers are equipped with these sockets. Check your particular Tester before ordering.
SA-3	1050-127	Nuvistor Adapter, for testing 5-pin Nuvistor tube types on all Hickok Tube Testers not supplied with this socket on the panel. NOTE: This socket is also on the CA-4, 1050-135 (and CA-5, 1050-164) Universal Adapters. If you have a Universal Adapter, this Nuvistor Adapter is unnecessary.
SA-4	1050-144	Novar Adapter, for testing all Novar tube types on all Hickok Tube Testers not supplied with this socket on the panel. NOTE: This socket is also on the CA-4, 1050-135 (and CA-5, 1050-164) Universal Adapters. If you have a Universal Adapter, this Novar Adapter is unnecessary.
SA-5	1050-129	Rimlock Adapter, for testing Foreign Rimlock tube types on all Hickok Tube Testers.
SA-6	1050-107	Septar Adapter, for testing Septar tube types such as 829B, 832A, etc., on all Hickok Tube Testers.
SA-7	1050-9	Acorn Adapter, for testing Acorn tube types on all Hickok Tube Testers not supplied with this socket on the panel.
SA-8	1050-168	Magnoval Adapter, for testing Magnoval tube types on all Hickok Tube Testers not supplied with this socket. CAUTION: Any attempt to force a Magnoval tube type into a Novar socket
		(it can be done) will spread the pin contacts in the socket and render it permanently useless for testing Novar tube types.
SA-9	1050-121	Pencil Tube Adapter, for testing Pencil tube tupes on all Hickok Tube Testers.
SA-11	1050-177	Decal Adapter, for testing 10-pin Decal tube types on all Hickok Tube Testers not supplied with this socket on panel. The following list of early Hickok Tube Testers also require a CA-4, 1050-135, Universal Adapter be used in conjunction with this Adapter: Models 533A, 539B, 600A, 605A, 750, 752, 800, 1575, 6000 and 6005.



ADAPTERS

for

TUBE TESTERS

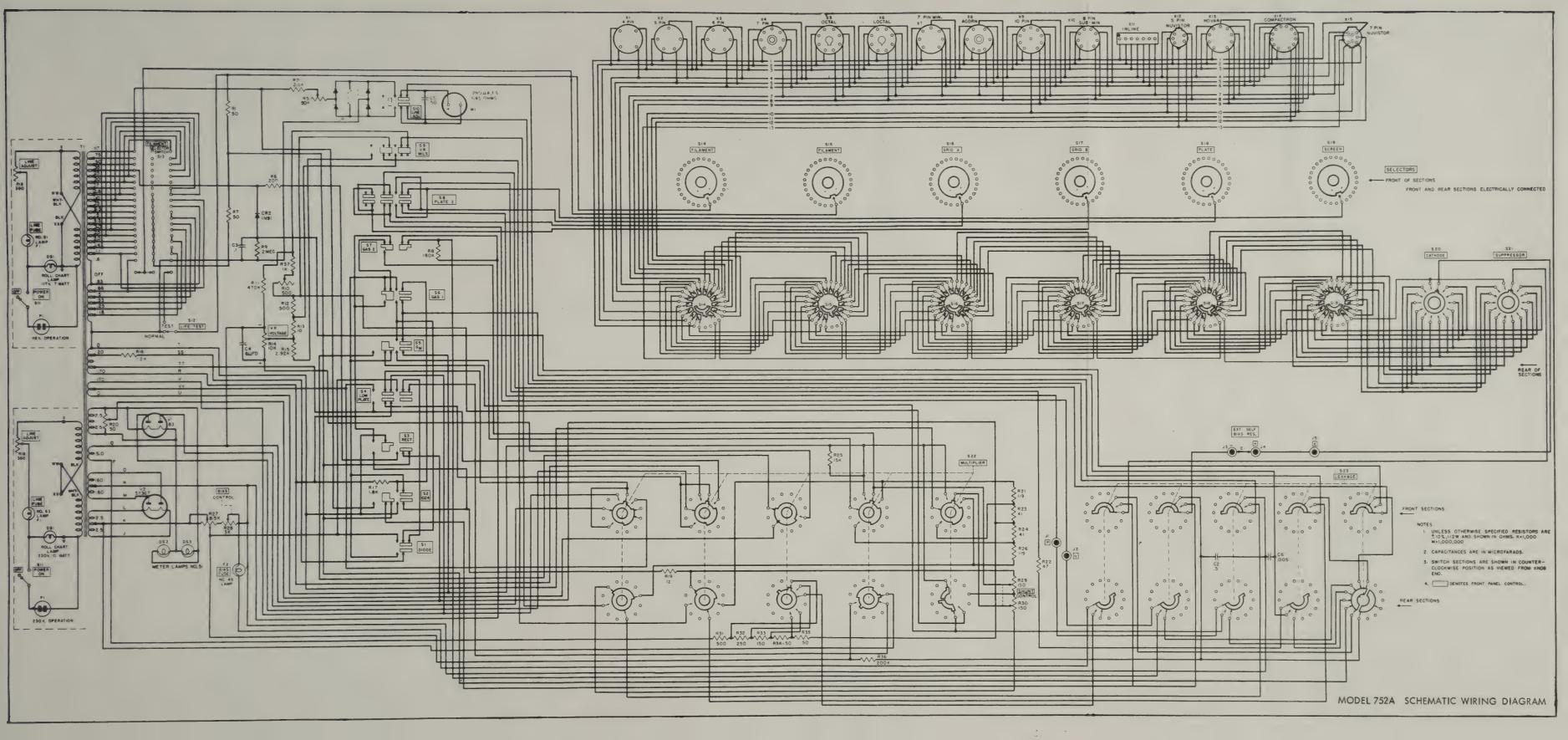
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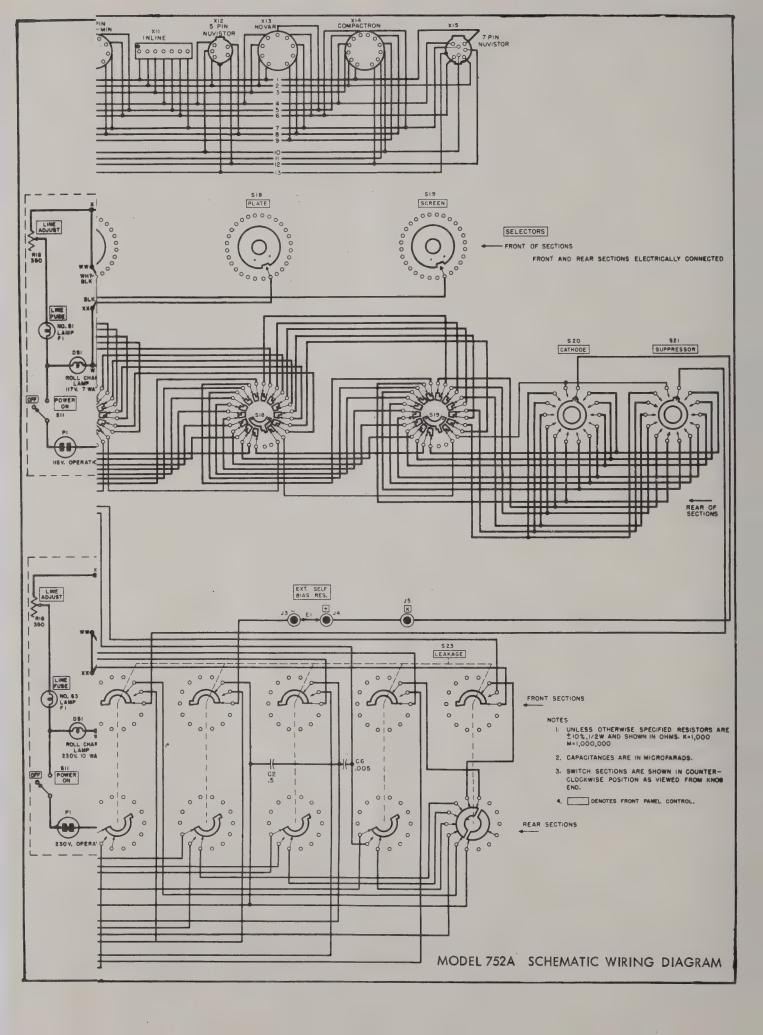
Model

Code

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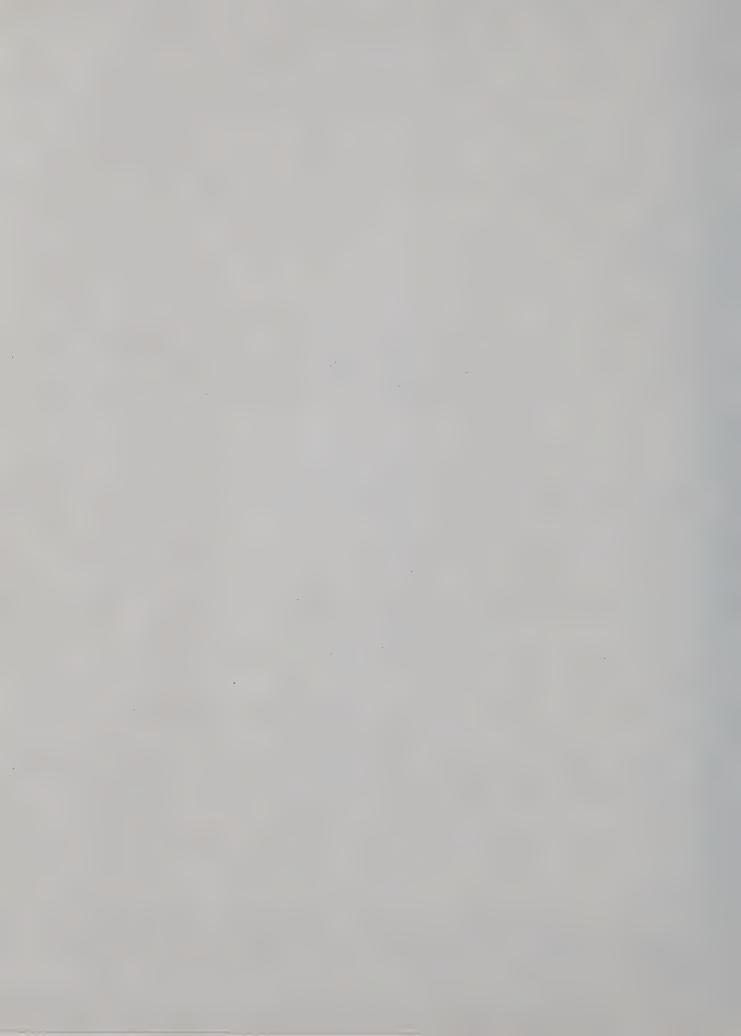








NOTATIONS	CAP=P HOLD DOWN S1 AND PRESS S5.	PENI. SECI.	TRIODE SECT.	PENT. SECT.	TRIODE NO. 1	TRIODE NO. 2	PENT. SECT.	TRIODE SECT.	CAP=P	CAP=P	TRIODE NO. 1	TRIODE NO. 2	TRIODE NO. 3	PENT. SECT.	TRIODE NO. 1	TRIODE NO. 2	PENT, NO, 1	PENT. NO. 2	PENT, NO. 1	PENT. NO. 2	3200–3248
MIN. MUT. COND.	675	200	350	450	700	200	750	750	650	450	725	725	725	450	700	200	475	475	325	325	(1)
PRESS	1	\$5	\$5	S 5	\$5	\$5	\$5	\$5	\$5	S 2	\$5	S5	S5	S 5	S 2	S 5	S 5	\$5	\$5	\$5	
MULT.	X10	X10	X10	X10	X 4	7X	X4	7X	7X	7X	7X	7X	7X	X10	7X	7X	X10	X10	X1	X1	
SHUNT		1	-	1			-	-	-	9		-		1	1	-			1	1	
BIAS	32	10	33	12	14	11	34	21	73	65	17	17	17	12	14	11	10	10	10	10	
SELECTORS	1C50-07A0	4520-8930	4560-7030	1CB0-2A90	1 C60-8050	1030-4070	1070-4890	1 CAO-20BO	4520-0738	4520-0738	1 C90-A040	1070-5060	1CB0-2030	1 CB 0-2A90	1 C60-8050	1030-4070	1C70-B98A	1030-5426	1040-6387	1C40-2385	
FIL.	3.0	4.3	4.3	5.0	5.0	5.0	5.0	5.0	6.3	6.3	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	12.6	12.6	
TUBE TYPE	3GY5‡	4FS7	4FS7	5AF11‡	5AF11	5AF11	5MF8‡	5MF8	†9219	19FW9	9 AM1 07	9AM10	9 AM1 0	10AF11‡	10AF11	10AF11	11BN11‡	11BN11	12BA11‡	12BA11	



NOTATIONS

- NOTE 1: symbol "X" For dual triodes make normal leakage test first, then repeat leakage test for 2nd section with button S8 pressed down and held. Proceed with 1st section Gm test with S8 released. For 2nd section test on all dual tubes, press down and hold button S8 together with button listed in PRESS column.
- NOTE 2: symbol "+" Verify shorts by setting filament switch to OFF position.
- NOTE 3: symbol "★" Approximate starting voltage for voltage regulator tubes.
- NOTE 4: symbol "†" Read 0-100 milliamperes with button S9 pressed down.
- NOTE 5: symbol "VR" For voltage regulator tubes, the figure in the MIN MUT COND (minimum mutual conductance) column indicates the nominal operating voltage.
- NOTE 6: symbol "#" Set BIAS at 100, press and hold down button indicated in the PRESS column while rotating BIAS dial counterclockwise until tube strikes.
- NOTE 7: For TUBE TESTER Models 752 and 752A, the Universal Adapter CA-5, 1050-164, is available. This Adapter provides tube test sockets for Compactrons, Novars, 5 and 7-pin Nuvistors, and the new 10-pin tubes, including Decals. Test data for these tubes is supplied in supplementary form with the Adapter. See inside back cover for description of all adapters.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
0A4 0Y4 1A4 1A5 1A6	OFF UFF 2.0 1.4 2.0	0000-5720 7830-5010 4100-2300 7250-3400 6100-2504	100 0 18 18 12	91 45 	SH SH X2 X2 X2	\$6 \$2 	650 650 225 250 225	CAP = G. HOLD DUWN S1 AND PRESS .55. HOLD DUWN S1 AND PRESS S5. PENTODE SECTION. CAP = G. HOLD DOWN S1 AND PRESS S5.
1A6 1A7	2.0 1.4	6140-3502 7250-3400	25 0		X1 X2	S 5	125 275	OSC. SECTION. PENTODE SECTION. CAP = G. HOLD DOWN S1 AND PRESS S5.
1A7 1AB5 1AC5	1.4 1.1 1.1	7250-6430 8160-2300 4520-7800	24 0 16		X1 X2 X1	\$5 \$5 \$5	250 375 360	OSC. SECTION.
1AD5 1AE4 1AF4 1AF5 1AF5	1.1 1.1 1.4 1.4	4520-7800 1760-2300 1760-2300 1760-5400 1700-3000	0 14 17 9 0	0	X1 X4 X4 X1 SH	\$5 \$5 \$5 \$5 \$5 \$1	425 225 150 375 250	PENTODE SECTION. DIODE SECTION.
1AG5 1AG5 1AJ5 1AJ5 1AK5	1 • 1 1 • 1 1 • 1 1 • 1	4650-1200 4600-3000 4650-1203 4600-3000 4650-1203	23 0 22 0 22	0 40	X1 SH X1 SH X1	\$5 \$1 \$5 \$1 \$5	225 150 250 400 175	PENTODE SECTION. DIODE SECTION. PENTODE SECTION. DIODE SECTION. PENTODE SECTION.
1AK5 1AU3 1AX2 1B4 1B5	1.1 1.1 1.4 2.0 2.0	4600-3000 7200-0000 1200-0000 4100-2300 6150-2000	0 0 0 15 10	20 53 57 	SH SH SH X1 X1	\$1 \$6 \$6 \$5 \$5	400 400 400 400 350	DIODE SECTION. CAP = P. CAP = P. CAP = G. TRIODE SECTION.
185 187	2.0	6100-4300 7200-3405	0 4	40	SH X2	S 1	400 300	DUAL DIUDE. NOTE 1. PENTODE SECTION. CAP = G.
187 1C3 1C5	1.4 1.4 1.4	7250-6403 1740-2000 7250-3400	17 19 18		X2 X1 X2	55 	200 475 475	HOLD DOWN SI AND PRESS S5. OSC. SECTION. HOLD DOWN SI AND PRESS S5. HOLD DOWN SI AND PRESS S5.
106	2.0	6100-2534	13		X2		250	AMPL. SECTION. CAP = G.
1C6 1C7	2.0	6140-3520 7200-3465	28 13		X1 X2	S 5	150 250	PENTODE SECTION. CAP = G.
1C7 1C8	2.0 1.1	7250-6430 4520-7608	28 40		X1 X1	S 5 S 5	150 175	HOLD DOWN SI AND PRESS S5. OSC. SECTION.
105 107	2 •,0 2 • 0	7200-3400 7200-3465	18 12		X2 X2		225 225	CAP = G. HOLD DOWN SI AND PRESS S5. PENTODE SECTION. CAP = G.
1D7 1D8 1D8	2.0 1.4 1.4	7250-6430 7250-3460 7200-6000	25 18 0		X1 X2 X1	S 5 S 5	125 275 350	HOLD DOWN SI AND PRESS S5. OSC. SECTION. PENTODE SECTION. HOLD DOWN SI & PRESS S5 TRIODE SECTION. CAP = G.
1D8 1E3 1E4 1E5 1E7	1.4 1.1 1.4 2.0 2.0	7200-8000 4510-8000 7250-3000 7200-3400 7250-6834	0 20 25 15	0	SH X4 X2 X1 X2	S1 S5 S5 S5 S5	400 550 375 400 350	DIODE SECTION. CAP = G. PENTODE NO. 1.
1E7 1F4 1F5 1F6	2.0 2.0 2.0 2.0	7240-3865 5130-2400 7250-3400 6100-2300	11 22 22 22 8		X2 X2 X2 X2	S 5 S 5 S 5	350 425 425 200	PENTODE NO. 2. PENTODE SECTION. CAP = G.
1F6	2.0	6100-5400	. 8	0	SH	S1	400	HOLD DOWN S1 AND PRESS S5. DUAL DIODE: NOTE 1.
1F7	2.0	7200-3600	8		X2		200	PENTODE SECTION. CAP = G. HOLD DOWN S1 AND PRESS S5.
1F7 1G4 1G5 1G6	2.0 1.4 2.0 1.4	7200-4530 7250-3000 7250-3040 7254-6300	8 48 16 19	0	SH X2 X2 X2	\$1 \$5 \$5	400 250 475 200	DUAL DIODE. NOTE 1. HOLD DOWN SI AND PRESS S5. DUAL TRIODE. NOTE 1.
1H4	2.0	7250-3000	40		X2	\$5	275	

TUBE TYPE	FIL.	SELECTURS	HIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIUNS
1H5 1H5 1H6 1H6	1.4 1.4 2.0 2.0	7200-3000 7200-5000 7260-3000 7200-5400	0 0 10	 0 40	X1 SH X1 SH	\$5 \$1 \$5 \$1	175 400 350 400	TRIUDE SECTION. CAP = G. DIODE SECTION. TRIODE SECTION. DUAL DIODE. NOTE 1.
1J3 1J5 1J6 1L4 1L6	1.1 2.0 2.0 1.4 1.4	7200-0000 7250-3400 7254-6300 7160-2300 1760-2534	0 46 23 19	53	SH X2 X2 X2 X2 X1	\$6 \$5 \$5 \$5 \$5 \$5	400 300 300 325 625	CAP = P. DUAL TRIODE: NOTE 1: PENTODE SECTION: NOTE 2:
116 1LA4 1LA6 1LA6 1L84	1 • 4 1 = 4 1 • 4 1 • 4	1740-3526 8160-2300 8160-2534 8140-3526 8160-2300	0 18 8 0 18		X1 X2 X1 X1 X2	\$5 \$5 \$5	250 250 625 225 275	OSC. SECTION. NOTE 2. HOLD DOWN S1 AND PRESS S5. PENTUDE SECTION. NOTE 2. USC. SECTION. NOTE 2. HOLD DOWN S1 AND PRESS S5.
1LB6 1LB6 1LC5 1LC6 1LC6	1 • 4 1 • 4 1 = 4 1 • 4	8160-2437 8160-3574 8160-2340 8160-2534 8140-3526	22 13 8 19		X1 X1 X1 X1 X1	55 \$5 \$5 \$5 \$5	300 475 625 225	USE THIS SETTING FOR SHORT CHECK ONLY. NOTE 2. PENTUDE SECTION. NOTE 2. USC. SECTION. NOTE 2.
1LD5 1LD5 1LE3 1LF3 1LG5	1 • 4 1 • 4 1 • 4 1 • 4	8160-2300 8100-4000 8160-2000 8160-2000 8160-2340	14 0 25 25 15	0	X1 SH X2 X2 X2	\$5 \$1 \$5 \$5 \$5	350 400 375 375 325	PENTUDE SECTION. DIUDE SECTION. NOTE 2.
1LH4 1LH4 1LN5 1N5 1N6	1.4 1.4 1.4 1.4	8160-2000 8100-4000 8160-2340 7200-3400 7250-3400	0 11 11 40	0	X1 SH X2 X2 X2	\$5 \$1 \$5 \$5 \$5	175 400 225 225 250	TRIODE SECTION. DIUDE SECTION. NOTE 2. CAP = G. PENTODE SECTION.
1N6 1P5 105 106 106	1.4 1.4 1.4 1.1	7200-6000 7200-3400 7250-3400 4520-7800 4500-6000	0 12 0 14 0	0	SH X2 X2 X1 SH	\$1 \$5 \$5 \$1	400 250 625 250 400	DIODE SECTION. CAP = G. HOLD DOWN S1 AND PRESS S5. PENTODE SECTION. DIODE SECTION.
1R4 1S6 1S6 1SA6 1SB6	1 - 4 1 - 1 1 - 1 1 - 4 1 - 4	8100-4070 4530-1800 4500-6000 7240-8630 7280-3400	0 14 0 0 12	48 0 	SH X1 SH X2 X1	\$1 \$5 \$1 \$5	400 250 400 250 400	PENTODE SECTION. DIUDF SECTION. HOLD DOWN S1 AND PRESS S5. PENTODE SECTION.
1586 174 175 176 176	1.4 1.4 1.4 1.1	7280-5000 1760-2300 7250-3400 4530-1860 4500-6000	0 () 44 14 0	0	SH X2 X2 X1 SH	\$1 \$4 \$5 \$5 \$5	400 225 350 250 400	PENTODE SECTION. NOTE 2. DIODE SECTION.
1U5 1U5 1U6 1U6 1V	1.4 1.4 1.4 1.4 6.3	1760-2300 1700-4000 1760-2534 1740-3562 4100-2030	13 0 10 0	15	X1 SH X1 X1 SH	\$5 \$1 \$5 \$5 \$5	400 400 625 225 650	PENTODE SECTION. DIODE SECTION. AMPL. SECTION. NOTE 2. OSC. SECTION. NOTE 2.
1V5 1V6 1V6 1W4 1Z2	1 • 1 1 • 1 1 • 1 1 • 4 1 • 4	4520-7800 4730-1205 4750-6003 1760-2300 1200-0000	16 12 27 16 0	80	X1 X1 X1 X1 SH	\$5 \$5 \$5 \$5 \$5 \$6	360 300 175 575 400	PENTODE SECTION. NOTE 2. TRIODE SECTION. NOTE 2. CAP = P.
2A3 2A4 2A5 2A6 2A6	2.5 2.5 2.5 2.5 2.5	4130-2000 7250-3000 6140-2350 6100-2050 6100-4350	74 23 11 11	93 32	X4 SH X2 X4 SH	\$5 \$6 \$5 \$5 \$1	475 650 625 175 400	STRIKES AT ABOUT 44. NOTE 6. TRIUDE SECTION. CAP = G. DUAL DIODE. NOTE 1.
2A7 2A7 2B3 2B4	2.5 2.5 1.4 2.5	7100-2365 7150-4362 7200-0000 5130-2040	0 22 0 	80 93	X2 X1 SH SH	54 \$5 \$6 \$6	300 225 400 650	PENTODE SECTION. CAP = G. USC. SECTION. CAP = P. STRIKES AT ABOUT 58. NOTE 6.

YUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MUL T	PRESS	MIN. MUT. CUND	SONITATIONS
286	2.5	7140-2360	18		X2	\$5	475	
2B7 2B7 2B27 2B22 2B23 2C4	2.5 2.5 6.3 6.3 2.5	7100-2360 7100-5460 7200-0080 7200-3080 7130-5040	22 22 0 0	32 30 87 93	X2 SH SH SH SH	\$5 \$1 \$3 \$6 \$6	300 400 650 650 650	PENTODE SECTION. CAP = G. DUAL DIODE. NUTE 1. TOP WASHER = P. STRIKES AT ABOUT 72. NUTE 6.
2C21 2C22 2C26 2C40 2C45	6.3 6.3 6.3 7.5	7104-3526 7200-0080 7200-0080 7200-0080 4130-2000	35 23 13 20 37		X2 X4 X2 X4 X2	\$5 \$5 \$5 \$5 \$5 \$5	425 475 550 425 625	DUAL TRIDDE. CAP = G. NOTE 1. FAR CAP = G. NEAR CAP = P. RIGHT CAP = P. LEFT CAP = G. CAP = P. RING = G.
2C50 2C52 2C53 2DZ4 2E5	12.6 12.6 6.3 2.5 2.5	7814-2536 7841-5263 7250-0080 3420-1050 6150-4030	41 15 0 12 0	100	X2 X2 X1 X10 SH	\$5 \$5 \$5 \$4 \$5	550 300 175 500	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. CAP = P. EYE OPEN.
2E5 2E22 2E24 2E25 2E26	2.5 6.3 6.3 6.3	6150-4230 5130-0240 7250-0300 7250-0408 7250-0318	0 40 29 0 37	100	SH X2 X4 X4 X4	\$5 \$5 \$5 \$5 \$5	675 500 425 550	CAP = P.
2E30 2E31 2E32 2E35 2E36	6.3 1.1 1.1 1.1	4310-5602 3540-1200 3540-1200 3540-1200 3540-1200	14 18 18 20 20		X4 X1 X1 X1 X1	\$5 \$5 \$5 \$5 \$5	475 300 300 300 300 300	NOTE 2.
2E41 2E41 2E42 2E42 2E42 2G21	1.1 1.1 1.1 1.1	4650-1200 4600-3000 4650-1200 4600-3000 4730-2651	23 0 23 0 27	0	X1 SH X1 SH X1	\$5 \$1 \$5 \$1 \$5	225 150 225 150 150	DIODE SECTION.
2G21 2G22 2G22 2V2 2V3	1.1 1.1 1.1 2.5 2.5	4730-1000 4730-2651 4730-1000 7200-0050 7200-0000	25 27 25 0	 68 78	X1 X1 X1 SH SH	\$5 \$5 \$5 \$6 \$6	250 150 250 650 650	HEPTODE SECTION. NOTE 2. TRIODE SECTION.
2W3 2X2A 2Z2 3A4 3A5	2.5 2.5 2.5 2.5 3.0	8200-4000 4100-0000 4100-2000 1740-2300 1750-6000	0 0 0 11 35	0 88 0	SH SH SH X2 X2	\$3 \$6 \$3 \$5	400 650 400 600 625	HOLD DOWN SI AND PRESS S5.
3A5 3A8 3A8 3A8 3B5	3.0 2.5 2.5 2.5 2.5	7130-2000 7200-3400 7250-6000 7200-8000 7250-3400	35 17 0 0 33	 32 	X2 X2 X1 SH X2	\$5 \$5 \$5 \$1 \$4	625 225 175 400 425	PENTODE SECTION. CAP = G. TRIODE SECTION.
387 387 302 306 306	2.5 2.5 3.0 2.5 2.5	1860-7000 8130-2000 7200-0000 1850-6000 8140-3000	27 27 0 10	88	X2 X2 SH X2 X2	\$5 \$5 \$6 \$4 \$4	475 475 400 350 350	TRIODE NO. 2. CAP = P. TRIODE NO. 1.
3CF6 3D6 3E5 3E6 3E29	3.0 2.5 2.5 3.0 6.3	4310-5627 8160-2300 1760-2350 8160-2340 5762-0340	10 16 27 22 15		X4 X4 X1 X4 X10	\$5 \$5 \$5 \$5	700 375 750 250 475	SHORT ON 1-2. NOTE 2.
3E29 3ES5 3FQ5 3FQ5A 3GS8	6.3 3.0 3.0 3.0	4320-5070	15 10 14 14		X10 X10 X10 X10 X10	\$5 \$5 \$5 \$5 \$5	475 550 650 750 350	
3GS8	3.0	4570-3216	U		×1		350	PENTODE NO. 2. HOLD DOWN SI AND PRESS S5

TUBE TYPE	FIL.	SELECTURS	нІАЅ	SHUNT	MULT	PRESS	MIN. MUT. COND	ZMUITATION
3GU5 3HM6 3HS8 3HS8	3.0 3.0 3.0 3.0	4310-5620 4520-7819 4570-8219 4570-3216	9 10 10		X20 X10 X1 X1	\$5 \$5 \$5 \$5	650 625 325 325	PENTODE NO. 1. PENTODE NO. 2.
3HT6 3LE4 3LF4 3Q4	3.0 2.5 2.5 3.0	4520-7819 8160-2300 8160-2300 7130-2400	1() 55 0		X10 X2 X2 X4 X4	\$5 \$5 	475 350 625 300	HOLD DOWN SI AND PRESS S5. HOLD DOWN SI AND PRESS S5.
3Q5 3S4 4-65A	2.5	7250-3400 7130-2400 1740-0600	23		X2	54	625 475	HOLD DOWN S1 AND PRESS S5. CAP = P. USE ADAPT 1050-107.
4A6 4A6 4BA6	3.0 3.0 4.3	7250-6000 2740-3000 4310-5672	27 27 0	100 mm 4mm 100 mm 100 100 mm 100	X2 X2 X4	S5 S5 S5	300 300 500	TEST FOR SHURTS UNLY TRIODE NO. 1. TRIODE NO. 2.
48E6 48E6 48X8 48Z8 4CE5	4.3 4.3 4.3 4.3 4.3	4370-5621 4310-6027 4572-6183 4572-6183 4310-5620	0 20 11 14 10		X2 X10 X10 X10 X4	\$5 \$4 \$5 \$5 \$5	250 400 300 425 700	AMPL. SECTION. HOLD DOWN S1 AND PRESS S5 OSC. SECTION. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
4CX2508	6.3	3750-0120						ANODE COOLER = P. USE ADAPT 1050-109. TEST FOR SHORTS ONLY
4GW5 4X150A	4.3 6.3	4320-1050 3750-0120	19	TOT THE EET	X10	S5	300	ANODE COOLER = P. USE ADAPT 1050-109. TEST FOR SHORTS ONLY
4X250B 5A6	6.3 5.0	3750-0120 4570-1603	25		X4	\$5	550	ANODE COOLER = P. USE ADAPT 1050-109. TEST FOR SHORTS ONLY NOTE 2.
5AS4 5AS4 5AW4 5AW4 5AX4	5.0 5.0 6.3 6.3	8200-6000 8200-4000 8200-6004 8200-4006 8200-6000	0 0 0 0	35 30 36 31 36	SH SH SH SH	\$3 \$3 \$3 \$3 \$3 \$3	650 650 650 650 400	PLATE NO. 1. PLATE NO. 2. PLATE NO. 1. PLATE NO. 2. PLATE NO. 1.
5AX4 5AZ4 5AZ4 5BS8 5BZ7	5.0 5.0 5.0 5.0	8200-4000 8200-6004 8200-4006 4572-6183 4572-6183	0 0 0 16 17	27 36 27 	SH SH SH X10 X10	\$3 \$3 \$3 \$5 \$5	400 400 400 450 425	PLATE NO. 2. PLATE NO. 1. PLATE NO. 2. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
5CM6 5CR8 5CR8 5CU4 5EH8	5.0 5.0 5.0 5.0	4530-9170 4520-6738 4590-1080 8200-6410 4570-9860	18 10 19 0 7	50	X4 X4 X4 SH X4	\$5 \$5 \$5 \$3 \$5	575 650 625 650 675	PENTODE SECTION. TRIODE SECTION. DUAL DIODE. NOTE 1. PENT: DE SECTION.
5EH8 5T4 5T4 5W4 5W4	5.0 5.0 5.0 5.0	4520-3010 8200-6000 8200-4000 8200-6000 8200-4000	15 0 0 0	43 34 38 32	X10 SH SH SH SH	\$5 \$3 \$3 \$3 \$3	475 650 650 400	TRIODE SECTION. PLATE NO. 1. PLATE NO. 2. PLATE NO. 1. PLATE NO. 2.
5X3 5X3 5X4 5X4 5Y4	5.0 5.0 5.0 5.0	4100-3000 4100-2000 7800-5000 7800-3000 7800-5000	0 0 0 0	34 20 35 30 36	SH SH SH SH SH	\$3 \$3 \$3 \$3 \$3	400 400 650 650 400	PLATE NO. 1. PLATE NO. 1. PLATE NO. 1. PLATE NO. 2. PLATE NO. 1.
5Y4 5Z3 5Z3 5Z4 6A3	5.0 5.0 5.0 5.0 6.3	7800-3000 4100-3000 4100-2000 8200-6400 4130-2000	0 0 0 0 74	27 35 30 57	SH SH SH SH X4	\$3 \$3 \$3 \$3 \$3 \$5	400 650 650 650 475	PLATE NO. 2. PLATE NO. 1. PLATE NO. 2. DUAL DIUDE. NOTE 1.
6A4 6A5 6A6 6A7 6A7	6.3 6.3 6.3 6.3	5130-2400 7250-3000 7153-6240 7100-2365 7150-4362	28 55 17 0 22		X2 X4 X2 X2 X1	\$5 \$5 \$5 \$4 \$5	625 550 475 300 225	DUAL TRIODE. NOTE 1. PENTODE SECTION. CAP = G. USC. SECTION.

TUBE TYPE	FIL.	SELECTURS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. CUND	NOTATIUNS
6A8 6A8 6A85 6A85 6AB6	6.3 6.3 6.3 6.3	7200-3485 7250-6483 6150-4030 6150-4230 7250-3480	0 22 0 0	100	X2 X1 SH SH X2	\$4 \$5 \$5 \$5 \$5 \$5	300 225 450	PENTUDE SECTION. CAP = G. USC. SECTION. EYE OPEN. EYE CLOSED.
6AB7 6AB8 6AB8 6AC5 6AC6	6.3 6.3 6.3 6.3	7240-8653 4590-6837 4520-1030 7250-3080 7250-3480	0 21 25 0 0	atter have reported to the state of the stat	X4 X4 X2 X2 X2	\$5 \$5 \$5 \$5 \$5	625 500 425 300 750	PENTODE SECTION. TRIGDE SECTION.
6AD4 6AD6 6AD6 6AD7 6AD7	6.3 6.3 6.3 6.3	3610-8050 7240-3580 7230-4580 7250-3486 7210-6083	20 0 0 15	100	X2 SH SH X2 X2	\$5 \$5 \$5 \$5 \$5	375 625 175	EYE 1 OPEN, EYE 2 CLOSED. EYE 2 OPEN, EYE 1 CLOSED. PENTODE SECTION. TRIODE SECTION.
6AE5 6AE6 6AE6 6AE7 6AE7	6.3 6.3 6.3 6.3	7250-3080 7250-4083 7250-3084 7260-3084 7240-3056	72 0 0 33 33	pas con con	X2 X2 X2 X2 X2 X2	\$5 \$5 \$5 \$5 \$5 \$5	375 225 250 475 475	TRIODE NO. 1. TRIODE NO. 2. TRIUDE NO. 1. TRIUDE NO. 1. TRIUDE NO. 2.
6AF5 6AF6 6AF6 6AH4 6AH5	6.3 6.3 6.3 6.3	7250-3080 7240-3580 7230-4580 7210-5080 7260-4180	52 0 0 48 17	100	X2 SH SH X4 X10	\$5 \$5 \$5 \$5 \$5	475 700 300	EYE 1 ÜPEN. EYE 2 CLOSED. EYE 2 OPEN. EYE 1 CLOSED.
6AH6 6AH7 6AJ4 6AJ5 6AJ7	6.3 6.3 6.3 6.3 6.3	4310-5672 7851-6342 8710-5020 4310-5620 7240-8653	13 25 16 13		X10 X2 X10 X4 X10	\$5 \$5 \$5 \$4 \$5	375 600 625 400 375	DUAL TRIODE: NOTE 1.
6AK4 6AK7 6AL7 6AL7 6AL7	6.3 6.3 6.3 6.3	3610-8057 7240-8651 7260-3580 7250-3480 7240-3580	26 12 	100 100 100	X4 X10 SH SH SH	\$5 \$5 \$5 \$5 \$5	600 475 	BIAS CONTROLS LEFT PATTERN. BIAS = VARY. BIAS CONTROLS BOTH PATTERNS. BIAS=VARY. BIAS CONTROLS RIGHT PATTERN. BIAS = VARY
6AM4 6AM5 6AN6 6AN6 6AQ6	6.3 6.3 6.3 6.3	8710-5020 3410-5720 7100-5460 7100-3260 4310-7020	11 26 0 0	65 65	X10 X4 SH SH X4	\$5 \$5 \$1 \$1 \$5	550 400 400 400 • 175	DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. TRIUDE SECTION.
6AQ6 6AQ7 6AQ7 6AR5 6AR6	6.3 6.3 6.3 6.3	4300~6520 7840~5060 7800~1320 4310~5620 6870~3510	0 13 0 17 17	30 53	SH X4 SH X4 X10	\$1 \$5 \$1 \$5 \$5	400 250 400 375 325	DUAL DIODE. NOTE 1. TRIUDE SECTION. DUAL DIODE. NOTE 1.
6AR8 6AR8 6AS5 6AU7 6AV5	6.3 6.3 6.3 6.3	4560-9372 4560-8372 4320-7610 4572-6183 7210-5830	15 15 22 25 28		X4 X4 X10 X2 X10	S5 S5 S5 S4	225 225 350 675 350	PLATE NO. 1. PLATE NO. 2. HOLD DOWN SI AND PRESS S5. DUAL TRIODE. NOTE 1.
6AW7 6AW7 6AX6 6AX7 6AX8	6.3 6.3 6.3 6.3	7820-6010 7800-3451 7200-5384 4572-6183 4520-6370	10 0 0 14 10	76 58	X 4 S H S H X 4 X 4	\$5 \$1 \$3 \$5 \$5	175 400 650 200 475	TRIODE SECTION. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1. PENTODE SECTION.
6AX8 6AZ5 6AZ6 6B4 6B5	6.3 6.3 6.3 6.3	4590-1080 3600-8172 3600-2745 7250-3000 6140-2350	10 0 74 0	75 78 	X10 SH SH X4 X2	\$5 \$1 \$1 \$5 \$5	525 400 400 475 525	TRIODE SECTION. DUAL DIUDE. NOTE 1. DUAL DIODE. NOTE 1.
686 686 687	6.3 6.3 6.3	7200-3080 7200-5480 7100-2360	11 11 22	32	X4 SH X2	\$5 \$1 \$5	175 400 300	DUAL DIDDE. NOTE 1.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
687 688	6.3	7100-5460 7200-3681	22 22	32 	SH X2	\$1 \$5	400 300	DUAL DIODE. NOTE 1. PENTODE SECTION. CAP = G.
688 6805 6806 68E7 68E8	6.3 6.3 6.3 6.3	7200-5481 7210-5830 4310-5672 4570-1639 4590-6783	22 21 10 29 12	32	SH X10 X4 X2 X4	\$1 \$5 \$5 \$5 \$5 \$5	400 300 300 300 475	DUAL DIODE. NOTE 1. PENTODE SECTION.
68E8 68F5 68F6 68F6 68F7	6.3 6.3 6.3 6.3	4510-2030 4310-5620 4310-7020 4300-6520 3672-8154	10 20 21 0 14	30	X10 X10 X2 SH X10	\$5 \$5 \$1 \$5	525 475 600 400 300	TRIODE SECTION. HOLD DOWN S1 AND PRESS S5. TRIODE SECTION. DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1.
6BF8 6BF8 6BF8 6BG6 6BG7	6.3 6.3 6.3 6.3 6.3	4500-9860 4500-7360 4500-2160 7250-0830 3672-8154	0 0 0 18 14	78 78 78	SH SH SH X10 X10	\$1 \$1 \$1 \$5 \$5	400 400 400 375 300	DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. CAP = P. DUAL TRIODE. NOTE 1.
6BJ6 6BK5 6BK6 6BK6 68K7	6.3 6.3 6.3 6.3 6.3	4310-5627 4530-1860 4310-7025 4300-6527 4572-6183	10 0 14 0 10	53	X2 X10 X4 SH X10	\$5 \$5 \$5 \$1 \$5	775 475 200 400 525	TRIODE SECTION. DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1.
6BL4 6BSB 6BT6 6BT6 6BT8	6.3 6.3 6.3 6.3	7800-5030 4572-6183 4310-7020 4300-6520 4580-6790	0 16 15 0	62 53	SH X10 X4 SH X4	\$3 \$5 \$5 \$1 \$5	650 450 175 400 700	DUAL TRIODE. NOTE 1. TRIUDE SECTION. DUAL DIUDE. NOTE 1. PENTODE SECTION.
6BT8 6BU6 6BU6 6BV8 6BV8	6.3 6.3 6.3 6.3	4500-1230 4310-7020 4300-6520 4520-3010 4500-9678	0 21 0 19 0	68 53 78	SH X2 SH X10 SH	\$1 \$5 \$1 \$5 \$1	400 600 400 350 400	DUAL DIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1.
68W4 68X6 68X7 68X8 68Y5	6.3 6.3 6.3 6.3	4500-7190 4520-7819 7841-5263 4572-6183 7200-5481	0 10 35 11 0	40 38	SH X10 X10 X10 SH	\$3 \$5 \$5 \$5 \$4 \$3	400 400 475 300 650	DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL DIODE. NOTE 1.
68Z8 6C5 6C6 6C7 6C7	6.3 6.3 6.3 6.3	4572-6183 7250-3080 6100-2354 7100-2060 7100-5460	14 21 21 26 26	30	X10 X2 X2 X2 X2 SH	\$5 \$5 \$5 \$5 \$5	425 625 375 375 400	DUAL TRIODE. NOTE 1. CAP = G. TRIODE SECTION. CAP = G. DUAL DIODE. NOTE 1.
6C8 6CF6 6CH7 6CH8 6CH8	6.3 6.3 6.3 6.3	7205-3648 4310-5627 4572-6183 4570-2360 4580-9010	15 10 17 10 24		X2 X4 X10 X4 X4	\$5 \$5 \$5 \$5 \$5	500 700 425 700 500	DUAL TRIODE. CAP = G. NOTE 1. DUAL TRIODE. NOTE 1. PENTODE SECTION. TRIODE SECTION.
6CJ6 6CK6 6CM8 6CM8 6CR6	6.3 6.3 6.3 6.3 6.3	4520-0731 4520-7136 4520-6730 4590-1080 4370-5612	51 0 10 12 13		X10 X10 X4 X2 X4	\$5 \$5 \$5 \$5 \$5	275 550 700 475 300	CAP = P. PENTODE SECTION. TRIODE SECTION. PENTODE SECTION.
6CR6 6CR8 6CR8 6CU6 6D4	6.3 6.3 6.3 6.3 6.3	4300-2010 4520-6738 4590-1080 7250-0480 4310-7050	0 10 19 28	30 93	SH X4 X4 X10 SH	S1 S5 S5 S4 S6	400 650 625 350 650	DIODE SECTION. PENTODE SECTION. TRIODE SECTION. CAP = P. STRIKES AT ABOUT 70. NOTE 6.
605 607 608 608 60A6	6.3 6.3 6.3 6.3	7250-3080 7100-2364 7200-3485 7250-6483 4520-7839	57 21 0 22 12		X2 X2 X2 X1 X4	\$5 \$5 \$4 \$5 \$5	625 375 300 225 475	CAP = G. PENTODE SECTION. CAP = G. OSC. SECTION.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. CUND	NOTATIONS
6DA7 6DA7 6DB6 6DB6 6DN6	6.3 6.3 6.3 6.3	4570-6080 4530-1090 4310-5627 4370-5621 7250-0830	23 55 12 17 28		X4 X10 X4 X2 X10	\$5 \$5 \$5	400 275 325 300 550	TRIDDE NO. 1. TRIODE NO. 2. GRID NO. 1. GRID NO. 3. HOLD DOWN SI AND PRESS S5. CAP = P. HOLD DOWN SI AND PRESS S5.
6DW5 6DX4 6E5 6E5 6E6	6.3 6.3 6.3 6.3	4530-9170 3420-1050 6150-4030 6150-4230 7153-6240	28 26 0 0 51	100	X10 X10 SH SH X2	\$4 \$5 \$5 \$5 \$5 \$5	350 500 425	EYE OPEN. EYE CLOSED. DUAL TRIODE. NOTE 1.
6E7 6F4 6F5 6F6 6F7	6.3 6.3 6.3 6.3	7100-2364 6120-3070 7200-4081 7250-3481 7100-2365	17 18 12 23 18	Marin Copy (Add) Marin Copy (Add) Marin Copy (Add) Marin Copy (Add) Marin Copy (Add)	X2 X10 X4 X2 X2	\$5 \$4 \$5 \$5 \$5	500 375 225 625 350	CAP = G. CAP = G. PENTODE SECTION. CAP = G.
6F7 6F8 6FH6 6FR7 6FR7	6.3 6.3 6.3 6.3	7150-4063 7205-3648 7250-0480 4570-6080 4530-1090	35 23 36 13 60		X2 X4 X10 X2 X10	\$5 \$5 \$5 \$5	150 400 300 500 425	TRIODE SECTION. DUAL TRIODE. CAP = G. NOTE 1. CAP = P. HOLD DOWN S1 AND PRESS S5. TRIODE NO. 1. TRIODE NO. 2.
6FW8 6G5 6G5 6G6 6GC6	6.3 6.3 6.3 6.3	4572-6183 6150-4030 6150-4230 7250-3480 2750-0830	21 0 0 17 50	100	X10 SH SH X2 X10	\$5 \$5 \$5 \$5 \$5	525 725 300	DUAL TRIODE. NOTE 1. EYE OPEN. EYE CLOSED. CAP = P.
6GD7 6GD7 6GS8 6GS8 6GW5	6.3 6.3 6.3 6.3	4590-6780 4510-2030 4570-8219 4570-3216 4320-1050	10 17 0 0	100 TO	X10 X10 X1 X1 X1	\$5 \$5 \$5	475 575 350 350 300	PENTODE SECTION. TRIODE SECTION. PENTODE NO. 1. HOLD DOWN SI AND PRESS S5 PENTODE NO. 2. HOLD DOWN SI AND PRESS S5
6H4 6H5 6H5 6H6 6J5	6.3 6.3 6.3 6.3	7200-4080 6150-4030 6150-4230 7200-5384 7250-3080	0 0 0 0 23	73 100 100 73	SH SH SH SH X4	\$1 \$5 \$5 \$5 \$1 \$5	400 400 400	EYE OPEN. EYE CLOSED. DUAL DIODE. NOTE 1.
7L6 8L6 8L6 8AL6 6AL6	6.3 6.3 6.3 6.3	7200-3485 7250-3486 7250-6084 4570-9860 4520-3010	21 12 23 12 23		X2 X2 X2 X10 X2	\$5 \$5 \$5 \$5 \$5	375 300 500 525 475	HEPTODE SECTION. CAP = G. TRIODE SECTION.
6K4 6K5 6K7 6K8 6K8	6.3 6.3 6.3 6.3	7200-3080 7200-3485 7250-3486	29 15 13 11 17	THE THE LIGHT THE	X4 X4 X2 X2 X2 X4	\$5 \$5 \$5 \$5 \$5 \$5	450 300	CAP = G. CAP = G. HEXODE SECTION. CAP = G. TRIODE SECTION.
6KS8 6KS8 6L4 6L5 6L7	6.3 6.3 6.3 6.3	4570-9860 4520-3010 6120-3070 7250-3080 7200-3485	17 16 16 24 10		X10 X4 X10 X2 X4	\$5 \$5 \$4 \$5 \$5	375 500 375 600 175	PENTODE SECTION. TRIODE SECTION. CAP GRID. CAP = G.
6L7 6N4 6N5 6N5 6N6	6.3 6.3 6.3 6.3	7250-3481 4310-5020 6150-4030 6150-4230 7250-3480	14 18 0 0	100	X4 X10 SH SH X2	\$5 \$5 \$5 \$5 \$5 \$5	175 375 525	PIN GRID. EYE OPEN. EYE CLOSED.
6N7 6N8 6N8 6P5 6P7	6.3 6.3 6.3 6.3	7254-6380 4520-6139 4500-7839 7250-3080 2300-4586	17 8 0 32 18	30	X2 X4 SH X2 X2	\$5 \$1 \$5 \$5	475 350 400 450 350	DUAL TRIODE. NOTE 1. PENTODE SECTION. HOLD DOWN S1 & PRESS S5 DUAL DIODE. NOTE 1. PENTODE SECTION. CAP = G.
6P7 6Q4 6Q5	6.3 6.3 6.3	2370-6084 4510-9030 7250-3080	35 10 	93	X2 X20 SH	\$5 \$5 \$6	150 375 650	TRIODE SECTION. STRIKES AT ABOUT 55. NOTE 6.

TUBE TYPE	FIL.	SELECTORS	RIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
606 606	6.3 6.3	7200-3080 7200-5480	13 13	30	X2 SH	S 5 S 1	300 400	TRINDE SECTION. CAP = G. DUAL DIODE. NOTE 1.
607 607 6R <i>I</i> 6R 7 6R 8	6.3 6.3 6.3 6.3	7200-3081 7200-5483 7200-3081 7200-5483 4580-9072	15 15 21 21 21	30 30 	X4 SH X2 SH X2	\$5 \$1 \$5 \$1 \$5	175 400 600 400 600	TRIODE SECTION. CAP = G. DUAL DIODE. NOTE 1. TRIODE SECTION. CAP = G. DUAL DIODE. NOTE 1. TRIODE SECTION.
6R8 6R8 6S7 6S8 6S8	6.3 6.3 6.3 6.3	4500-1678 4500-2039 7200-3485 7800-6020 7800-3452	0 0 12 11 11	78 78 38	SH SH X4 X4 SH	S1 S1 S5 S5 S1	400 400 275 175 400	DUAL DIODE. NOTE 1. DIODE NO. 3. CAP = G. TRIODE SECTION. CAP = G. DUAL DIUDE. NOTE 1.
658 65A7 65A7 65B7 65B7	6.3 6.3 6.3 6.3	7800-1020 7250-3468 7250-4068 7250-3468 7250-4068	11 32 30	38	SH X4 X4	\$1 \$5 \$5	400 475 625	DIODE NO. 3. USE THIS SETTING FOR SHORT CHECK ONLY. DO NOT CHECK FOR SHORTS. USE THIS SETTING FOR SHORT CHECK ONLY. DO NOT CHECK FOR SHORTS.
6SC7 6SD7 6SF5 6SF7 6SF7	6.3 6.3 6.3 6.3	7843-5260 7240-8653 7830-5021 7820-6431 7800-5436	12 10 12 10	30	X 4 X 4 X 4 X 4 S H	\$5 \$5 \$5 \$5 \$5	200 475 225 300 400	PENTODE SECTION. DIODE SECTION.
6SG7 6SH7 6SJ7 6SK7 6SL7	6.3 6.3 6.3 6.3	7240-8651 7240-8651 7240-8653 7240-8653 7841-5263	10 10 18 10 13		X4 X10 X4 X4 X4	\$5 \$5 \$5 \$5 \$5	475 225 250 300 250	DUAL TRIODE. NOTE 1.
6S07 6S07 6SR7 6SR7 6SS7	6.3 6.3 6.3 6.3	7820-6031 7800-5436 7820-6031 7800-5436 7240-8653	11 0 21 0 20	30	X4 SH X2 SH X4	\$5 \$1 \$5 \$1 \$5	175 400 600 400 275	TRIODE SECTION. DUAL DIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1.
65T7 6ST7 6SU7 6SV7 6SV7	6.3 6.3 6.3 6.3	7820-6031 7800-5436 7841-5263 7820-6430 7800-5030	21 0 13 11 0	30 75	X2 5H X4 X4 X4 5H	\$5 \$1 \$5 \$5 \$5	600 400 250 400 400	TRIODE SECTION. DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1. PENTODE SECTION. DIODE SECTION.
6SZ7 6SZ7 6T5 6T5	6.3 6.3 6.3 6.3	7820-6031 7800-5431 6150-4030 6150-4230 7200-3080	15 0 0 0 13	30 100 100	X4 SH SH SH X2	\$5 \$1 \$5 \$5 \$5	175 400 300	TRIODE SECTION. DUAL DIODE. NOTE 1. EYE OPEN. EYE CLOSED. TRIODE SECTION. CAP = G.
6T7 6U3 6U4 6U5 6U5	6.3 6.3 6.3 6.3	7200-5480 4500-9030 7800-5030 6150-4030 6150-4230	13 0 0 0	30 55 52 100 100	SH SH SH SH SH	\$1 \$3 \$3 \$5 \$5	400 650 650 	DUAL DIODE. NOTE 1. EYE OPEN. EYE CLOSED.
6U6 6U7 6V4 6V7	6.3 6.3 6.3 6.3	7250-3480 7200-3485 4500-7130 7200-3080 7200-5480	17 17 0 42 42	0 30	X10 X2 SH X2 SH	\$4 \$5 \$3 \$5 \$1	375 500 650 300 400	CAP = G. DUAL DIUDE. NUTE 1. TRIODE SECTION. CAP = G. DUAL DIUDE. NUTE 1.
6V8 6V8 6V8 6W5 6W7	6.3 6.3 6.3 6.3	4560-1038 4500-9032 4500-7283 7200-5380 7200-3485	15 0 0 0	30 78 20	X4 SH SH SH X2	\$5 \$1 \$1 \$3 \$5	175 400 400 650 375	TRIODE SECTION. DIODE NO. 1. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. CAP = G.
6X6 6X6 6Y5 6Y6 6Y7	6.3 6.3 6.3 6.3	2753-4086 2750-4386 6100-5340 7250-3480 7254-6380	99 99 0 41 13	99 99 58 	SH SH SH X10 X2	\$6 \$6 \$3 \$5 \$5	650 350 300	FYES OPEN. FYES CLOSED DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1.

						nocce	MIN.	NUTATIONS
TUBE TYPE 675 675 677 6775 784	6.3 6.3 6.3 6.3	1600-5040 2100-3040 7254-6380 7200-5380 8160-2070	0 0 14 0 23	30 30 15	MULT SH SH X2 SH X4	\$3 \$3 \$5 \$5 \$3 \$5	650 650 375 650 400	PLATE NO. 1. PLATE NO. 2. DUAL TRIODE. NOTE 1. DUAL DIODE. NOTE 1.
7A5 7A6 7A7 7A8 7A8	6.3 6.3 6.3 6.3	8160-2370 8100-6372 8160-2374 8140-5376 8140-2576	0 0 10 45 40	72	X10 SH X4 X2 X2	\$4 \$1 \$5 \$5 \$5 \$5	350 400 300 300 150	DUAL DIODE. NOTE 1. SECTION NO. 1. SECTION NO. 2.
7AB7 7AD7 7AF7 7AG7 7AH7	6.3 6.3 6.3 6.3	7250-3140 8160-2374 8154-6372 8160-2374 8160-2374	10 13 27 11 10		X4 X10 X4 X4 Y4	\$5 \$5 \$5 \$5 \$5 \$5	250 400 325 400 500	DUAL TRIODE. NOTE 1.
7AJ7 7AK7 7B4 7B5 7B6	6.3 6.3 6.3 6.3	8160-2374 8160-2374 8160-2070 8160-2370 8130-2070	8 0 12 17 11		X4 X4 X4 X4 X4	\$5 \$5 \$5 \$5 \$5	350 300 225 375 175	TRIODE SECTION.
786 787 788 788 764	6.3 6.3 6.3 6.3	8100-6572 8160-2374 8160-2574 8140-3576 8100-4070	0 23 0 22 0	30 70	SH X4 X2 X1 SH	S1 S5 S4 S5 S1	400 275 300 225 400	DUAL DIODE. NOTE 1. PENTODE SECTION. OSC. SECTION.
7C5 7C6 7C6 7C7 7E5	6.3 6.3 6.3 6.3	8160-2370 8130-2070 8100-6572 8160-2374 8210-3040	18 8 0 8 18	30	X4 X4 SH X4 X4	\$5 \$5 \$1 \$5 \$5	575 150 400 350 475	TRIODE SECTION. DUAL DIODE. NOTE 1.
7E6 7E6 7E7 7E7 7F7	6.3 6.3 6.3 6.3	8130-2070 8100-6572 8160-2570 8100-4372 8154-6372	21 0 20 0 13	30	X2 SH X4 SH X4	\$5 \$1 \$5 \$1 \$5	600 400 200 400 250	TRIODE SECTION. DUAL DIODE. NOTE 1. PENTODE SECTION. DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1.
7F8 7G7 7G8 7G8 7H7	6.3 6.3 6.3 6.3	7281-6354 8160-2374 8150-7362 8140-2367 8160-2374	16 11 11 11 10		X4 X10 X4 X4 X4	\$5 \$5 \$5 \$5 \$5	500 250 325 325 475	DUAL TRIODE. NOTE 1. TETRODE NO. 1. TETRODE NO. 2.
7J7 7J7 7K7 7K7 7L7	6.3 6.3 6.3 6.3	8160-2574 8140-3075 8140-3020 8100-5670 8160-2374	21 23 13 0	53	X2 X2 X4 SH X4	\$5 \$5 \$5 \$1 \$5	250 425 250 400 400	TRIODE SECTION. TRIODE SECTION. DUAL DIODE. NOTE 1.
7N7 7Q7 7Q7 7R7 7R7	6.3 6.3 6.3 6.3	8154-6372 8160-2374 8140-3076 8160-2570 8100-4372	23 0 14 8 0	30	X4 X2 X10 X4 SH	\$5 \$5 \$5 \$1	400 200 350 425 400	AMPL. SECTION. HOLD DOWN S1 AND PRESS S5
757 757 717 7V7 7W7	6.3 6.3 6.3 6.3	8160-2574 8140-3075 8160-2374 8160-2374 8160-2375	16 14 10 8 8	100 100 100 100 100 100 100 100 100 100	X2 X2 X4 X10 X10	\$5 \$5 \$5 \$5 \$5 \$5	475 525 475 250 250	HEPTODE SECTION. TRIODE SECTION.
7X6 7X7 7X7 7Y4 7Z4	6.3 6.3 6.3 6.3	8100-6372 8130-2040 8100-5647 8100-6370 8100-6370	0 11 0 0	45 77 20 35	SH X4 SH SH SH	\$3 \$5 \$1 \$3 \$3	650 150 400 650 400	TRIODE SECTION. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1.
8СҮ7 8СҮ7 8НА6	7.5 7.5 7.5	4570-6080 4520-1090 4520-7613	13 60 11		X4 X4 X20	\$5 \$5 \$5	200 : 625 : 400	TRIODE NO. 1. TRIODE NO. 2.

TUBE TYPE	FIL.	SELECTORS	HIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NUTATIUNS
8HG8 8HG8	7.5 7.5	4520-8930 4560-7030	11 33		X10 X10	\$5 \$5	475 350	PENTODE SECTION. TRIUDE SECTION.
8118 81K8 81E8 81E8	7.5 7.5 7.5 7.5 7.5	4570-9860 4520-3010 4570-6089 4520-1039 4570-9860	15 14 18 15 15		X10 X4 X10 X20 X10	\$5 \$5 \$5 \$5 \$5 \$5	475 625 300 350 550	PENTODE SECTION. TRIODE SECTION. TRIODE NO. 1. TRIODE NO. 2. PENTODE SECTION.
8JT8 8JU8 8JU8 8KS8 8KS8	7.5 7.5 7.5 7.5 7.5	4520-3010 4500-2839 4500-1728 4570-9860 4520-3010	21 0 0 17 16	78 78	X2 SH SH X10 X4	\$5 \$1 \$1 \$5 \$5	250 400 400 375 500	TRIODE SECTION. DIODE NO. 1 & 3. NOTE 1. DIODE NO. 2 & 4. NOTE 1. PENTODE SECTION. TRIODE SECTION.
8LE8 8LE8 8SN7 9BR7 9BR7	7.5 7.5 7.5 10.0 10.0	4590-6837 4590-1832 7841-5263 4520-1030 4500-7680	12 12 23 14	 78	X2 X2 X4 X4 X4 SH	\$5 \$5 \$5 \$5 \$5	450 450 400 625 400	PENTODE NO. 1. PENTODE NO. 2. DUAL TRIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1.
9CL8 9CL8 9DZ8 9DZ9 9U8	10.0 10.0 10.0 10.0	4590-6780 4510-2030 4530-6720 4510-9080 4520-6370	10 12 25 17 12		X4 X10 X4 X2 X4	\$5 \$5 \$5 \$5 \$5 \$5	550 425 725 250 475	TETRODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. PENTODE SECTION.
9U8 9X8 9X8 10 10C8	10.0 10.0 10.0 7.5	4590-1080 4570-9861 4520-3061 4130-2000 4580-6790	10 10 15 44		X10 X4 X10 X2 X4	\$5 \$5 \$5 \$5 \$5 \$5	525 725 350 375 625	TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. PENTODE SECTION.
10C8 10DA7 10DA7 10EHB 10EBB	10.0 10.0 10.0 10.0	4520-1030 4570-6080 4530-1090 4570-9860 4520-3010	14 23 55 0		X4 X4 X10 X10 X2	\$5 \$5 \$5 \$5 \$5 \$5	625 400 275 625 625	TRIODE SECTION. TRIODE NO. 1. TRIODE NO. 2. PENTODE SECTION. TRIODE SECTION.
10EW7 10EW7 10F07 10FD7 10FR7	10.0 10.0 10.0 10.0	4570-6080 4520-1090 4570-6080 4520-1090 4570-6080	34 56 15 60 13		X2 X10 X2 X10 X2	\$5 \$5 \$5 \$5 \$5 \$5	650 475 500 475 500	TRIODE NO. 1. TRIODE NO. 2. TRIODE NO. 1. TRIODE NO. 2. TRIODE NO. 1.
10FR7 10HA6 10Y 11C5 12A	10.0 10.0 7.5 10.0 5.0	4530-1090 4520-7613 4130-2000 4320-7610 4130-2000	60 11 44 0 48		X10 X20 X2 X10 X2	\$5 \$5 \$5 \$4 \$5	425 400 375 300 525	TRIUDE NO. 2.
12A4 12A5 12A6 12A7 12A7	12.6 12.6 12.6 12.6	4520-9010 7140-2350 7250-3481 7100-2365 7100-5042	25 38 18 40 40	30	X10 X2 X4 X2 SH	\$5 \$5 \$5 \$5 \$5 \$3	500 550 475 300 650	PENTODE SECTION. CAP = G. RECT. SECTION.
12A8 12A8 12A85 12AC6 12AD6	12.6 12.6 12.6 12.6	7200-3485 7250-6483 4530-9170 4320-6571 4370-6521	0 22 18 20 30	 15 25	X2 X1 X4 SH SH	S4 S5 S5 S1 S1	300 225 575 400 650	PENTODE SECTION. CAP = G. OSC. SECTION. MAKE NO GAS TEST. MAKE NO GAS TEST.
12AD7 12AE6 12AE6 12AE7 12AE7	12.6 12.6 12.6 12.6	4572-6183 4300-7021 4300-6520 4500-6087 4500-1032	14 0 0 0 0	0 30 67 70	X4 SH SH SH SH	\$5 \$1 \$1 \$1 \$1	200 400 400 650 650	DUAL TRIDDE. NOTE 1. TRIODE SECTION. MAKE NO GAS TEST. DUAL DIODE. NOTE 1. TRIODE NO. 1. MAKE NO GAS TEST. TRIODE NO. 2. MAKE NO GAS TEST.
12AF6 12AG6 12AH7 12AJ6 12AJ6	12.6 12.6 12.6 12.6 12.6	4310-5672 4370-6521 7851-6342 4300-7021 4300-6520	25 30 25 0	50 0 30	X1 SH X2 SH SH	S5 S1 S5 S1 S1	725 650 600 200 400	MAKE NO GAS TEST. DUAL TRIODE. NOTE 1. TRIODE SECTION. MAKE NO GAS TEST. DUAL DIODE. NOTE 1.

						6.45.55	MIN. MUT.	ZNOITATON
12AL8 12AL8 12AL8 12AS5 12AU8 12AU8	12.6 12.6 12.6	4500-3672 4500-1098 4320-7610 4570-9860	0 0 22 10	78 0 	MULT SH SH X10 X10	\$1 \$1 \$5 \$5	650 250 350 375 300	TRIODE SECTION. MAKE NO GAS TEST. HOLD DOWN SI AND PRESS S5. PENTODE SECTION.
12AV7 12AW6 12AX4 12B7 12B8	12.6 12.6 12.6 12.6 12.6		10 10 0 10	40	X10 X4 SH X4 X4	\$5 \$5 \$3 \$5 \$5	525 625 650 300 275	DUAL TRIODE. NOTE 1. PENTODE SECTION. CAP = G.
1288 128H7 128K5 128K6 128K6	12.6	4572-6183	7 28 0 14 0	 53	X4 X4 X10 X4 SH	\$5 \$5 \$5 \$5 \$5 \$1	300 475 475 200 400	DUAL TRIODE. NOTE 1.
12BL6 12BR7 12BR7 12BT6 12BT6	12.6 12.6 12.6 12.6	4320-6571 4520-1030 4500-7680 4310-7020 4300-6527	22 14 0 15	25 78 53	SH X4 SH X4 SH	\$1 \$5 \$1 \$5 \$1	650 625 400 175 400	MAKE NO GAS TEST. TRIODE SECTION. DUAL DIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1.
128U6 128U6 128V7 128W4 128Z7	12.6 12.6 12.6 12.6	4300-6527 4520-7813	21 0 0 0	53	X2 SH X10 SH X2	\$5 \$1 \$5 \$3 \$5	600 400 500 400 725	TRIODE SECTION. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1.
12C8 12C8 12CM6 12CN5 12CT8	12.6 12.6 12.6 12.6	7200-3681 7200-5483 4530-9170 4300-6712 4580-6790	22 22 18 0 10	32 55	X2 SH X4 SH X10	\$5 \$1 \$5 \$1 \$5	300 400 575 650 375	PENTODE SECTION. CAP = G. DUAL DIODE. NOTE 1. MAKE NO GAS TEST. PENTODE SECTION.
12CT8 12CX6 12DE8 12DE8 12DF5	12.6 12.6 12.6 12.6	4520-1030 4320-6571 4570-8691 4500-3020 4500-6183	13 0 0 0	53 32 82 40	X10 SH SH SH SH	\$5 \$1 \$1 \$1 \$3	300 650 400 400 400	MAKE NO GAS TEST. PENTODE SECTION. MAKE NO GAS TEST.
12DF7 12DK7 12DK7 12DL8 12DL8	12.6 12.6 12.6 12.6	4572-6183 4500-3721 4500-6920 4500~3627 4500-9180	14 0 0 0	62 30 81 46	X4 SH SH SH SH	\$5 \$1 \$1 \$1 \$1	200 650 400 650 400	TETRODE SECTION. MAKE NO GAS TEST. DUAL DIODE. NOTE 1.
12D04 12D07 12DS7 12DS7 12DU7	12.6 12.6 12.6 12.6	4520-7819 4570-3680	0 9 0 0	45 79 44 68	SH X10 SH SH SH	S3 S5 S1 S1	650 500 650 400 650	
12DU7 12DV7 12DV7 12DV8 12DV8	12.6 12.6 12.6 12.6 12.6	4500-9720 4500-6087 4500-3210 4500-3627 4500-9180	0 0 0 0	0 0 0 77 28	SH SH SH SH SH	\$1 \$1 \$1 \$1 \$1	400 400 400 400 400	TRIODE SECTION. MAKE NO GAS TEST. DUAL DIODE. NOTE 1. TETRODE SECTION. MAKE NO GAS TEST.
12DW5 12DW8 12DW8 12DW8 12DW8 12DY8	12.6 12.6 12.6 12.6 12.6	4530-9170 4570-6080 4520-1030 4500-9080 4500-3621	28 19 0 0	 47 76 76 66	X10 SH SH SH SH	\$4 \$1 \$1 \$1 \$1	350 650 650 400 650	TRIODE NO. 2. MAKE NO GAS TEST.
12DY8 12DZ6 12DZ8 12DZ8 12EA6	12.6 12.6 12.6 12.6	4500-8079 4320-6571 4530-6720 4510-9080 4320-6571	0 0 25 17 0	24 60 56	SH SH X4 X2 SH	S1 S1 S5 S5 S1	400 650 725 250 650	PENTODE SECTION.
12EC8 12EC8 12ED5	12.6 12.6 12.6	4500-7689 4500-2031 3420-7610	0 0	21 40	SH SH X10	S1 S1 S4	650 650 425	PENTODE SECTION. MAKE NO GAS TEST. TRIODE SECTION. MAKE NO GAS TEST.

TUBE TYPE	SIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
12EG6 12EH5	12.6 12.6	4370-6521 4320-7610	0 13	56 	SH X10	S1 S5	650 450	MAKE NU GAS TEST.
12EK6 12EL6 12EL6 12EM6 12EM6	12.6 12.6 12.6 12.6	4320-6571 4300-2071 4300-5670 4500-3621 4500-9020	0 0 0 0	60 0 30 62 30	SH SH SH SH SH	\$1 \$1 \$1 \$1 \$1 \$1	650 200 400 650 400	MAKE NO GAS TEST. TRIODE SECTION. MAKE NO GAS TEST. DUAL BIODE. NOTE 1. TETRODE SECTION. MAKE NO GAS TEST. DIODE SECTION.
12EN6 12E07 12E07 12E26 12F5	12.6 12.6 12.6 12.6 12.6	7250-3480 4520-7631 4500-8030 4320-6571 7200-4080	38 20 0 0	30 49	X10 X2 SH SH X4	\$5 \$5 \$1 \$1 \$5	375 850 400 650 225	PENTODE SECTION. DIODE SECTION. MAKE NO GAS TEST. CAP = G.
12F8 12F8 12FK6 12FK6 12FM6	12.6 12.6 12.6 12.6	4590-2378 4500-6170 4310-7020 4300-6520 4300-7021	25 0 20 0	0 30 0 30 25	SH SH SH SH	S1 S1 S1 S1 S1	400 400 400 400 650	PENTODE SECTION. MAKE NO GAS TEST. DUAL DIODE. NOTE 1. TRIODE SECTION. MAKE NO GAS TEST. DUAL DIODE. NOTE 1. TRIODE SECTION. MAKE NO GAS TEST.
12FM6 12FR8 12FR8 12FR8 12FT6	12.6 12.6 12.6 12.6 12.6	4530-6700 4510-9020	0 25 10 0	36 75 50 41 43	SH SH SH SH SH	S1 S1 S1 S1 S1	400 650 625 400 650	DUAL DIODE. NOTE 1. PENTODE SECTION. MAKE NO GAS TEST. TRIODE SECTION. MAKE NO GAS TEST. DIODE SECTION. TRIODE SECTION. MAKE NO GAS TEST.
12FT6 12FV7 12FX8 12FX8 12G4	12.6 12.6 12.6 12.6		0 25 30 0 23	46 40 76 	SH X10 SH SH X4	S1 S5 S1 S1 S5	400 550 650 650 400	DUAL DIODE. MAKE NO GAS TEST. NOTE 1. DUAL TRIODE. NOTE 1. HEPTODE SECTION. MAKE NO GAS TEST. TRIODE SECTION. MAKE NO GAS TEST.
12G8 12G8 12GA6 12H6 12J5	12.6 12.6 12.6 12.6	4500-6078 4500-1023 4370-6521 7200-5384 7250-3081	0 0 30 0 23	65 25 23 73	SH SH SH SH X4	\$1 \$1 \$1 \$1 \$1 \$5	650 650 650 400 400	TRIODE NO. 1. MAKE NO GAS TEST. TRIODE NO. 2. MAKE NO GAS TEST. MAKE NO GAS TEST. DUAL DIODE. NOTE 1.
12J7 12J8 12J8 12J8 12J8 12K7	12.6 12.6 12.6 12.6		21 0 0 0 18	65 78 82	X2 SH SH SH X2	\$5 \$1 \$1 \$1 \$5	375 650 400 400 450	TETRODE SECTION. MAKE NO GAS TEST. DIODE NO. 1.
12K8 12K8 12KL8 12KL8 12KL8	12.6 12.6 12.6 12.6 12.6	7250-6084 4520-7631 4500-8030	11 17 5 0 25	33	X2 X4 X2 SH X10	\$5 \$5 \$1	300 475 600 400 375	HEXODE SECTION. CAP = G. TRIODE SECTION. PENT. SECT. HOLD DOWN S1 AND PRESS S5. DIODE SECTION. HOLD DOWN S1 AND PRESS S5.
12L8 12L8 12Q7 12Q7 12R5	12.6	7610-8523 7630-4521 7200-3080 7200-5483 4320-7610	0 0 15 15	30	X2 X2 X4 SH X10	S5 S5 S5 S1	525 525 175 400 425	PENTODE NO. 2. TRIODE SECTION. CAP = G. DUAL DIODE. NOTE 1.
1258 1258 1258 1258 125A7	12.6 12.6 12.6 12.6	7800-1020	11 11 11 	38 38 	X4 SH SH X4	\$5 \$1 \$1 \$5	175 400 400 475	DUAL DIODE. NOTE 1.
12SC7 12SF5 12SF7 12SF7 12SG7	12.6 12.6 12.6 12.6	7843-5260 7830-5020 7820-6431 7800-5036 7240-8651	12 12 10 0	30	X4 X4 X4 SH X4	\$5 \$5 \$5 \$1 \$5	200 225 300 400 475	
12SH7 12SJ7 12SK7 12SL7 12SL7	12.6 12.6 12.6 12.6 12.6	7240-8651 7240-8653 7240-8653 7841-5263 7820-6031	10 18 10 13		X10 X4 X4 X4 X4 X4	\$5 \$5 \$5 \$5 \$5 \$5	225 250 300 250 175	DUAL TRIODE. NOTE 1.
								SEE NEXT PAGE FOR CONTINUATION

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PKESS	MIN. MUT. COND	NOTATIONS
12SQ7 12SR7 12SR7 12SR7 12SW7	12.6 12.6 12.6 12.6	7800-5436 7820-6031 7800-5436 7820-6031 7800-5436	0 21 0 21 0	30	SH X2 SH X2 SH	\$1 \$5 \$1 \$5 \$1	400 600 400 600 400	DUAL DIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1.
125X7 125Y7 125Y7 125Y7 12U7 12U7	12.6 12.6 12.6 12.6	7841-5263 7280-3465 7250-4068 4500-6087 4500-1032	23 10 22 0	0 0	X4 X4 X4 SH SH	\$5 55 \$1 \$1	400 150 625 400 400	DHAL TRID - NOTE 1- AMPL- SECTION HOLD DOWN ST AND PRESS S5 OSC. SECTION HOLD DOWN ST AND PRESS S5 TRIODE NO. 1- MAKE NO GAS TEST. TRIODE NO. 2- MAKE NO GAS TEST.
12Z3 12Z5 12Z5 13FR7 13FK7	12.6 6.3 6.3 12.6 12.6	4100-2030 6100-5040 2100-3040 4570-6080 4530-1090	0 0 0 13 60	35 30 30 	SH SH SH X2 X10	\$3 \$3 \$3 \$5 \$5	650 650 650 500 425	PLATE NO. 1 PLATE NO. 2. TRIODE NO. 1: TRIODE NC. 2.
14A4 14A5 14A7 14AF7 14B6	12.6 12.6 12.6 12.6	8160-2070 8160-2370 8160-2374 8154-6372 8130-2070	23 18 10 27 11		X4 X4 X4 X4 X4	\$5 \$5 \$5 \$5 \$5	400 475 300 325 175	DUAL TRIODE, NOTE 1. TRIODE SECTION.
1486 1488 1488 1465 1467	12.6 12.6 12.6 12.6	8100-6572 8160-2574 8140-3576 8160-2370 8160-2374	0 0 22 18 8	30	SH X2 X1 X4 X4	\$1 \$4 \$5 \$5 \$5	400 300 225 575 350	DUAL DIODE. NOTE 1. PENTODE SECTION. OSC. SECTION.
14E6 14E6 14E7 14E7 14F7	12.6 12.6 12.6 12.6	8130-2070 8100-6572 8160-2570 8100-4372 8154-6372	21 0 20 0 13	30 30 	X2 SH X4 SH X4	\$5 \$1 \$5 \$1 \$5	600 400 200 400 250	TRIODE SECTION. DUAL DIODE. NOTE 1. PENTODE SECTION. DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1.
14F8 14H7 14J7 14J7 14N7	12.6 12.6 12.6 12.6	7281-6354 8160-2374 8160-2574 8140-3075 8154-6372	16 10 21 23 23		X4 X4 X2 X2 X4	\$5 \$5 \$5 \$5 \$5	500 475 250 425 400	DUAL TRIODE. NOTE 1. HEPTODE SECTION. TRIODE SECTION. DUAL TRIODE. NOTE 1.
1407 1407 1487 1487 1487	12.6 12.6 12.6 12.6	8160-2374 8140-3076 8160-2570 8100-4372 8160-2574	0 14 8 0 16	30	X2 X10 X4 SH X2	55 S5 S1 S5	200 350 425 400 475	AMPL. SECTION. HOLD DOWN S1 & PRESS S5. OSC. SECTION. PENTODE SECTION. DUAL DIODE. NOTE 1. HEPTODE SECTION.
14S7 14V7 14W7 14X7 14X7	12.6 12.6 12.6 12.6 12.6	8140-3075 8160-2374 8160-2375 8130-2040 8100-5647	14 8 8 11 0	 77	X2 X10 X10 X4 SH	\$5 \$5 \$5 \$5 \$1	525 250 250 150 400	
14Y4 14Z3 15 15A6 15EA7	12.6 12.6 2.0 12.6 17.0	8100-6370 4100-2030 5100-2340 4520-7136 7840-5060	0 0 0 8 22	45 35 	SH SH X2 X10 X2	\$3 \$3 \$5 \$5	400 650 225 475 400	CAP = G. HOLD DOWN SI AND PRESS S5.
15EA7 15EW6 17AV5 17CA5 17DQ4	17.0 12.6 17.0 17.0	7810-2030 4310-5627 7210-5830 4320-7610 7800-5030	59 10 28 20 0	 45	X10 X10 X10 X10 SH	\$5 \$5 \$4 \$5 \$3	375 675 350 300 650	
17HC8 17HC8 17JK8 17JK8 17JK8	17.0 17.0 17.0 17.0 17.0	4530-6720 4510-9080 4570-6089 4520-1039 7250-3480	17 10 18 15 40		X4 X2 X10 X20 X10	\$5 \$5 \$5 \$5 \$5	700 600 300 350 375	TRIODE SECTION. TRIODE NO. 1.
17K5 18DZ8	17.0 20.0	4320-7610 4530-6720	13 25		X10 X4	 \$5	375 725	

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
180Z8 18H88 18H88	20.0 20.0 20.0	4510-9080 4590-7680 4510-3020	17 24 15		X 7 X 4 X 4	\$5 \$5 \$5	250 475 475	TRIODE SECTION. PENTODE SECTION. HOLD DOWN LIFE TEST. TRIODE SECTION. HOLD DOWN LIFE TEST.
19 19866 1968 1968 1968	2.0 20.0 20.0 20.0 20.0	6143-5200 7250-0830 4580-9070 4500-6273 4500-1070	23 18 14 0	 78 78	X2 X10 X4 SH SH	\$5 \$5 \$5 \$1 \$1	300 375 200 400 400	DUAL TRIODE. NOTE 1. CAP = P. TRIODE SECTION. DUAL DIODE. NOTE 1. DIODE NO. 3.
19DE7 19DE7 19J6 19T8 19T8	20.0 20.0 20.0 20.0 20.0	4570-6080 4520-1090 4356-2170 4580-9076 4500-6273	30 55 17 15	78	X2 X4 X10 X4 SH	\$5 \$5 \$5 \$5 \$5	625 775 325 175 400	TRIODE NO. 1. TRIODE NO. 2. DUAL TRIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1.
19T8 19V8 19V8 19V8 19V8	20.0 20.0 20.0 20.0 20.0	4500-1078 4560-1038 4500-9032 4500-7283 4500-9030	0 15 0 0	78 30 78 50	SH X4 SH SH SH	\$1 \$5 \$1 \$1 \$3	400 175 400 400 650	DIODE NO. 3. TRIODE SECTION. DIODE NO. 1. DUAL DIODE. NOTE 1.
19Y3 RK20A 20EQ7 20EQ7 21A6	20.0 7.5 20.0 20.0 20.0	4500-9030 5130-0240 4520-7631 4500-8030 4520-0839	0 () 20 0 42	50 30 	SH X2 X2 X2 SH X10	S3 S5 S5 S1 S5	650 625 850 400 375	CAP = P. PENTODE SECTION. DIODE SECTION. CAP = P.
21EX6	20.0	7250-0830	53		X10	\$5	550	CAP = P. TUBES INDICATING SHORTS# RE-TEST USING 7250-0130.
22 24A VT25A 25A6	3.0 2.5 7.5 25.0	4100-2300 5100-2340 4130-2000 7250-3480	0 25 44 18		X1 X2 X2 X4	\$5 \$5 \$5 \$5	300 300 375 350	CAP = G. CAP = G.
25A7 25A7 25AC5 25B5 25B6	25.0 25.0 25.0 25.0 25.0	7250-3486 7200-6013 7250-3080 6140-2350 7250-3480	32 0 0 0 20	40	X2 SH X2 X2 X10	\$5 \$3 \$5 \$5 \$5	550 650 475 625 300	PENTODE SECTION. RECT. SECTION.
2588 2588 25C6 25CU6 25D8	25.0 25.0 25.0 25.0 25.0	7200-3410 7280-5060 7250-3480 7250-0480 7200-3410	18 7 41 28 18		X4 X4 X10 X10 X4	\$5 \$5 \$5 \$4 \$5	275 300 350 350 300	PENTODE SECTION. CAP = G. TRIODE SECTION. CAP = P. PENTODE SECTION. CAP = G.
25D8 25D8 25DK4 25DQ6 25DT5	25.0 25.0 25.0 25.0 25.0	7250-6010 7200-8010 3400-5070 7250-0480 4530-9170	12 12 0 36 22	53 57 	X4 SH SH X10 X10	\$5 \$1 \$3 \$5	175 400 650 300 325	TRIODE SECTION. DIODE SECTION. CAP = P. HOLD DOWN S1 AND PRESS S5.
25N6 25T 25W6 25Y5 25Z3	25.0 6.3 25.0 25.0 25.0	7250-3480 4130-0000 7250-3480 6100-5243 6100-5243	0 0 25 0	30	X2 X2 X10 SH SH	\$5 \$5 \$3 \$3	625 275 375 650 650	CAP = P. HOLD DOWN SI AND PRESS S5. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1.
25Z4 25Z5 25Z6 26 26	25.0 25.0 25.0 1.4 25.0	7200-5080 6100-5243 7200-5384 4130-2000 4310-5672	0 0 0 39 8	50 30 30 	SH SH SH X2 X4	\$3 \$3 \$3 \$5 \$5	650 650 650 350 475	DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1.
26A7 26A7 26BK6 26BK6 76C6	25.0 25.0 25.0 25.0 25.0	7610-8523 7630-4521 4310-7025 4300-6527 4310-7020	8 8 14 0 21	 53	X10 X10 X4 SH X2	\$4 \$4 \$5 \$1 \$5	350 350 200 400 600	PENTODE NO. 1. PENTODE NO. 2. TRIODE SECTION. DUAL DIODE. NOTE 1. TRIODE SECTION.
26C6 26D6 26D6 26E6	25-0	4300-6527 4370-5621 4310-6027 7250+3480	0 () 2() ()	3() 	SH X2 X10 X10	\$1 \$5 	400 250 400 400	DUAL DINDE. NOTE 1. AMPL. SECTION. HOLD DOWN SI AND PRESS S5 DSC. SECTION. HOLD DOWN SI AND PRESS S5.

						INC. E. C.	MIN. TUM	NOTATIONS
TUBE TYPE	FIL. 25.0	4500-6183	HIAS	SHUNT 30	MULT	PRESS 53	650	DUAL DIDDE. NOTE 1.
27 30 31 32 32L7	2.5 2.0 2.0 2.0 35.0	5130-2040 4130-2000 4130-2000 4100-2300 7250-3480	41 43 41 20 16		X2 X2 X2 X2 X2 X10	\$5 \$5 \$5 \$4	300 275 275 200 300	CAP = G. HOLD DOWN S1 AND PRESS S5. PENTUDE SECTION.
32L7 33 RK33 34 35	35.0 2.0 6.3 2.0 2.5	7200-6013 5130-2400 7104-3526 4100-2300 5100-2340	0 27 35 16 20	45 	SH X2 X2 X2 X2 X2	\$3 \$5 \$5 \$5 \$5	650 400 425 175 300	RECT. SECTION. DUAL TRIODE. CAP = G. NOTE 1. CAP = G. HULD DOWN S1 AND PRESS S5. CAP = G.
35A5 35CD6 35DZ8 35DZ8 35Y4	35.0 35.0 35.0 35.0	8160-2370 7250-0830 4530-6720 4510-9080 8100-2070	0 29 25 17	 50	X10 X10 X4 X2 SH	\$4 \$4 \$5 \$5 \$5 \$3	300 375 725 250 650	CAP = P. PENTODE SECTION. TRIODE SECTION.
3523 3524 3526 36 37	35.0 35.0 35.0 6.3	8100-2070 7200-5080 7200-5384 5100-2340 5130-2040	0 0 0 31 42	50 50 50 	SH SH SH X2 X2	\$3 \$3 \$3 \$5 \$5	650 650 650 325 275	DUAL DIODE. NOTE 1. CAP = G.
38 39/44 40 40Z5 41	6.3 6.3 5.0 50.0	5100-2340 5100-2340 4130-2000 7200-5080 6140-2350	35 25 20 0	53	X2 X2 X1 SH X4	\$5 \$5 \$5 \$5 \$3 \$5	325 300 125 650 375	CAP = G. CAP = G.
42 43 45 4523 4525	6.3 25.0 2.5 50.0 50.0	6140-2350 6140-2350 4130-2000 7100-2040 7200-5080	23 18 57 0	 44 53	X2 X4 X2 SH SH	\$5 \$5 \$5 \$3 \$3	625 350 575 650 650	
46 47 48 49 50	2.5 2.5 25.0 2.0 7.5	5130-2400 5130-2400 6140-2350 5130-2400 4130-2000	0 0 45 49 60		X2 X2 X2 X2 X2 X2	\$5 \$5 \$5 \$5 \$5	625 625 625 350 475	·
50A5 50B5 50BK5 50C6 50CA5	50.0 50.0 50.0 50.0 50.0	8160-2370 4310-5620 4530-1860 7250-3481 3420-7610	25 13 0 41 0		X10 X10 X10 X10 X10	 S5 S5 S5	375 475 475 350 425	HOLD DOWN S1 AND PRESS S5. HOLD DOWN S1 AND PRESS S5.
50FA5 50FY8 50FY8 50L6 50X6		3420-7610 4530-6720 4510-9080 7250-3480 8100-6372	39 32 21 25 0	45	X4 X10 X2 X10 SH	\$5 \$5 \$5 \$3	700 275 475 375 650	TRIODE SECTION. HOLD DOWN SI AND PRESS S5.
50Y6 50Y7 50Z7 51/51S HD51	50.0 50.0 50.0 2.5 OFF	7200-5384 7200-5384 7200-5384 5100-2340 0000-5020	0 0 0 20	45 45 45 	SH SH SH X2 VR	\$3 \$3 \$3 \$5 \$5	650 650 650 325	DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. CAP = G.
52 53 55 55 56	6.3 2.5 2.5 2.5 2.5	5130-2400 7153-6240 6100-2050 6100-4350 5130-2040	0 17 42 42 32	30	X2 X2 X2 X2 SH X2	\$5 \$5 \$5 \$1 \$5	750 475 300 400 450	TRIODE SECTION. CAP = G.
57 57A 58 584/58AS	2.5 6.3 2.5 6.3 2.5	6100-2354 6100-2354 6100-2354 6100-2354 7140-2365	21 21 17 17 0		X2 X2 X2 X2 X2 X2	\$5 \$5 \$5 \$5 \$5	375 375 500 500 625	CAP = G. CAP = G.
нү65	6.3	7250-0408	O		X4	\$5	425	CAP = P.

TEST DATA MODEL 752 & 752A TUBE TESTERS

THE HICKOK ELECTRICAL INSTRUMENT CO.

10514 DUPONT AVENUE • CLEVELAND, OHIO 44108

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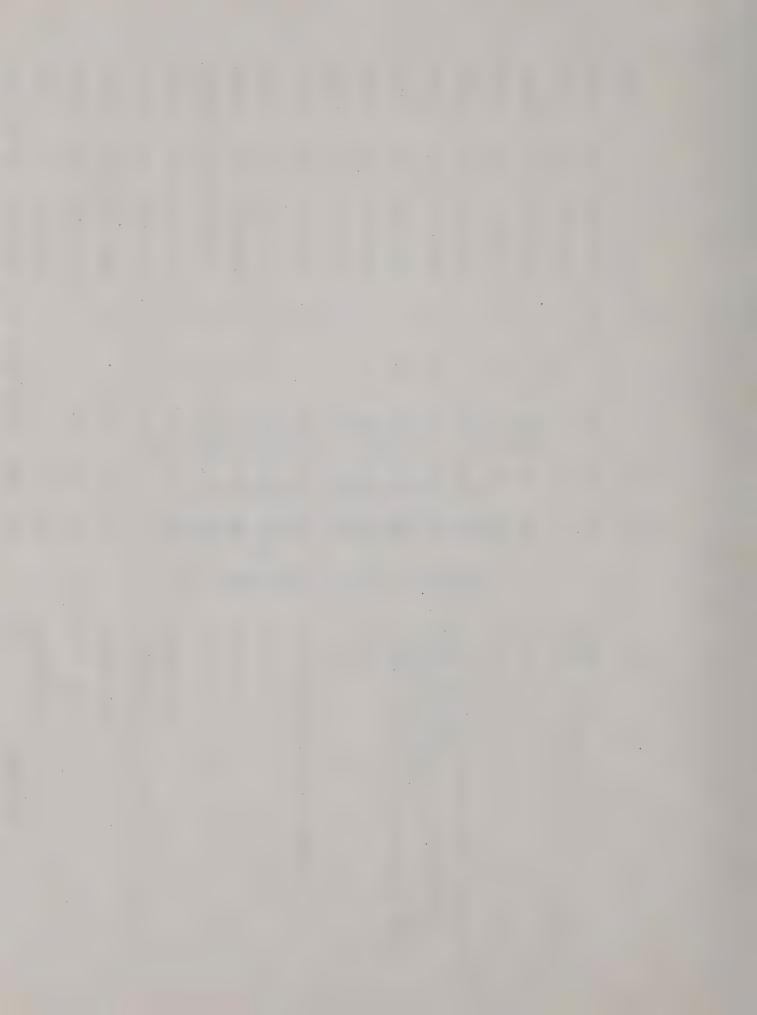
GENERAL TEST DATA

For further information see

OBSOLETE TUBE TYPES

FOREIGN TUBE TYPES

8950‡	36LW 6	34DK3	31LZ6‡	31LR8	31LR8‡	25DL3	25DK3	24LZ6‡	23MB6‡	17GY5‡	17BD11	17BD11	17BD11‡	15AB9	15AB9‡	12DZ8	12DZ8	12BA11	TUBE TYPE
12.6	35.0	35.0	35.0	35.0	35.0	25.0	25.0	25.0	25.0	17.0	17.0	17.0	17.0	12.6	12.6	12.6	12.6	12.6	PE FIL.
1C50-0324	8750-0320	4500-2000	4520-0738	4590-8010	4520-6730	4500-2000	4500-2000	4520-0738	1050-0324	1C50-07A0	1C30-4070	1C60-8050	1CB0-2A90	5630-1240	5690-78A0	4510-9080	4530-6720	1C90-BOAD	SELECTORS
75	70	0	73	21	40	0	0	73	75	32	14	14	15	16	16	17	25	30	BIAS
-]] 	78	8 8 1	1	!	78	78	1 1	1	1 2 1		1	1	1	1		}	!	SHUNT
X4	X10	HS	X4	X4	X10	HS	SH	X4	X4	X10	X4	X4	X10	X10	X10	X2	X4	X2	MULT.
S 5	S 5	s ₃	S 5	S 5	S	S3	S3	S 5	S	ł	85	S	S 5	SS	S 5	S 5	S	S 5	PRESS
900	475	400	650	350	350	400	400	650	900	675	700	800	450	375	375	500	725	550	MIN. MUT. COND.
CAP=P	CAP=P	CONNECT CAP TO EXT. SELF BIAS RES. JACK	CAP=P	TRIODE SECT.	PENT. SECT. USE ADAPTER SA-4, 1050-144.	CONNECT CAP TO EXT. SELF BIAS RES. JACK	CONNECT CAP TO EXT. SELF BIAS RES. JACK	CAP=P	CAP=P	CAP=P HOLD DOWN S1 AND PRESS S5.	TRIODE NO. 2	TRIODE NO. 1	PENT. SECT.	TETRODE NO. 2	TETRODE NO. 1 USE ADAPTER SA-11-1050-177.	TRIODE SECT.	PENT. SECT.	TRIODE SECT.	NOTATIONS



THE THE	571	CEL ECTORS	DIAC	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
TUBE TYPE		SELECTORS						
1AJ4	1.4	7160-2300	25		X2	\$5	175	PENTODE SECTION.
1AR5	1.4	1760-5400	9	0	X1 SH	S 5 S 1	375 250	DIODE SECTION.
1AR5	1.4	1700-3000 1760-2300	9		X1	S 5	375	PENTODE SECTION.
1AS5 1AS5	1.4	1700-4000	ó	0	SH	Si	250	DIODE SECTION.
1862	1.4	2700-0000	0	88	SH	\$6	400	CONNECT FIL. LEADS TO OCTAL SOCKET PINS 2 & 7. SINGLE LEAD = P.
1040	1 6	4200-0000	0	85 -	SH	S 6	400	CAP=P.
1BK2 1BQ2	1.4	1200-0000	ŏ	86	SH	S 6	400	CAP=P
18X2	1.4	1200-0000	0	80	SH	56	400	CAP=P.
101	1.4	1740-3062	10		X2	S 4	425	
							/ ^ _	
1013	1.4	7100-2030	0	0	SH X1	S1 S3	400 400	TOP LEAD=P. CONNECT FIL.
1D-K29	1.1	1200-0000	U		^1	33	400	LEADS TO PINS 1 AND 2.
1F2	1.4	7160-2300	19		X2	S 5	325	
1F3	1.4	1760-2300	0		X2	S4	225	
1M3	1.4	4510-8000		100		S6		ADJUST BIAS TO VARY BAR LENGTH.
								DO NOT ADJUST BIAS BELOW 30.
		4510 0000		100		S6		ADJUST BIAS TO VARY BAR LENGTH.
1N3	1.4	4510-8000		100		30		DO NOT ADJUST BIAS BELOW 30.
1P10	2.5	7130-2400	23		X2	54	475	
1911	3.0	7160-2300	0		X4		300	
28-H5	2.0	3140-2080	10		X10	S 4	575	USE ADAPTER SA-3, 1050-127 OR ADAPTER
								CA-4, 1050-135. NOTE 7. FOR MODEL 752A# USE SELECTORS AC40-2080 - DATA SAME AS
								ABOVE. NO ADAPTER REQUIRED.
20112	2.5	1000-0000	0	85	SH	S 6	400	CAP=P. MODEL 752# NOTE 7.
2BU2	2.0	1000-0000	ľ	"		""		• • • • • • • • • • • • • • • • • • • •
2ER5	2.0	4320-5670	11		X10	S 5	650	
2FY5	2.5	4320-5016	13		X10	\$5	800	
2HA5	2.0	4310-5076	17		X10	S 5 S 4	475 600	USE ADAPTER SA-3, 1050-127 OR ADAPTER
2N-H11	2.0	3140-2080	9		X10	54	800	CA-4. 1050-135. NOTE 7.
								FOR MODEL 752A# USE SELECTORS AC40-2080-
								DATA SAME AS ABOVE. NO ADAPTER REQUIRED.
2N-H12	2.0	AC60-1070	13		X10	S4	700	NOTE 7.
							475	HEPTODE SECTION.
3AJ8	3.0	4520-6137	15		X2 X4	S 5 S 5	475	TRIODE SECTION.
3AJ8 3BH2	3.0	4590-8032 8100-0000	20	90	SH	S6	400	CAP = P. USE ADAPTER SA-8, 1050-168.
38X6	3.0	4520-7819	10		X10	\$5	400	
3BY7	3.0	4520-7819	17		X4	S 5	550	
							.50	
3EH7	3.0	5420-7819	17		X4 X10	S5 S5	650 500	
3EJ7	3.0	5420-7819 4320-5670	10 11		X10	S5	650	
3ER5 3FY5	3.0	4320-5016	13		X10	\$5	800	
3HA5	2.5	4310-5076	17		X10	S 5	475	
3M-P26		3410-5620			X4	S 5 S 5	575 500	PENTODE SECTION.
4488	4.3	5490-6837 5420-1030	21 25		X4 X2	S5	425	TRIODE SECTION
4AB8 4BL8	4.3	4520-6371	12		x4	\$5	625	PENTODE SECTION.
4BL8	4.3	4590-1086	26		X4	S 5	675	TRIODE SECTION.
.020								
4BN4	4.3	4320-5010	16		X10	\$5	425	
4CM4	4.3	4520-1030	14		X10 X20	S5 S5	880 475	
4DL4 4EH7	4.3	5490-8020 5420-7819	17		X4	S5	650	
4EJ7	4.3	5420-7819	10		X10	S 5	500	
							,	
4ER5	3.0	4320-5670	11		X10	S 5	650	DUAL TRIODE. NOTE 1.
4ES8	4.3	5472-6183	22		X10 X10	S 5 S 5	475 800	DUAL IKTUDES NOTE IS
4FY5 4GJ7	4.3	4320-5016 5420-6710	13 10		X10	\$5	475	PENTODE SECTION.
4GJ7	4.3	5490-8030	29		X10	\$5	550	TRIODE SECTION.
								ASUTORS SSSTICH
4GS7	4.3	4590-6780	10		X10	S5	500	PENTODE SECTION.
4GS7	4.3		33		X10 X10	S5 S5	300 475	TRIODE SECTION.
4HA5 4HG8	4.3	4310-5076 4520-8930	17 11		X10	\$5	525	PENTODE SECTION.
4HG8	4.3	4560-7030	33		X10	\$5	380	TRIODE SECTION.
	,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
4KN8 4M-P12 4M-P26 4R-HH2	4.3 5.0 4.3 4.3	4572-6183 3410-5620 3410-5620 4572-6183	18 18 45 15		X20 X4 X4 X10	\$5 \$5 \$5 \$5	450 575 575 500	DUAL TRIODE. NOTE 1.
4R-HH8 5AR4 5ES8 5GJ7 5GJ7	5.0 5.0 5.0 5.0	4572-6183 8200-6400 5472-6183 5420-6710 5490-8030	18 0 22 10 29	68	X20 SH X10 X10 X10	\$5 \$3 \$5 \$5 \$5	450 650 475 475 550	DUAL TRIODE. NOTE 1. DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1. PENTODE SECTION. TRIODE SECTION.
5GS7 5GS7 5HG8 5HG8 5M-HH3	5.0 5.0 5.0 5.0	4510-2030 4520-8930 4560-7030 3465-1270	33 11 33 16	 52	X10 X10 X10 X10 X10 SH	\$5 \$5 \$5 \$5 \$5 \$5 \$5	300 525 375 560 600	PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. DUAL TRIODE. NOTE 1.
5M-K9 5U9	6.3	3400-5030 5630-7824	14		X10	\$5	375	PENTODE SECTIUN. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4.
5U9 5V9	6.3 5.0	56A8-9010 5630-7412	30 15		X10 X1	S5 -	300 700	NOTE 7. TRIODE SECTION. HEPTODE SECTION. HOLD DOWN S1 & PRESS S4 USE ADAPTER SA-11, 1050-177. MODEL 752#
5V9 5X9	5.0 6.3	5680-A090 5630-7824	23 15		X4 X10	S 5 S 5	650 375	USE SA-11 & CA-4. NOTE 7. TRIODE SECTION. PENTODE SECTION. USE ADAPTER SA-11. 1050-177. MODEL 752# USE SA-11 & CA-4. NOTE 7.
5X9 6AB8 6AB8 6AB9	6.3 6.3 6.3	56A0-9010 5490-6837 5420-1030 5690-78A0	14 21 25 16		X4 X4 X2 X10	S 5 S 5 S 5 S 5	750 500 425 375	TRIODE SECTION. PENTODE SECTION TRIODE SECTION. TETRODE NO. 1. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4.
6AB9	6.3	5630-1240	16		X10	S 5	375	NOTE 7. TETRODE NO. 2.
6AF9 6AF9	6.3	5680-A970 5610-4320	16 12		X10 X10	S 5 S 5	650 450	PENTODE NO. 1. (SEE BELOW). PENTODE NO. 2. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4.
6AJ8 6AJ8 6AK8	6.3 6.3 6.3	4520-6137 4590-8032 4580-9070	15 20 15	~~~	X2 X4 X4	S 5 S 5 S 5	475 475 175	NOTE 7. HEPTODE SECTION. TRIODE SECTION. TRIODE SECTION.
6AK8 6AK8 6AL3	6.3 6.3	4500-6070 4500-2137 4500-9000	0 0 0	35 78 56	SH SH SH	S1 S1 S3	400 400 800	DIODE NO. 1. DUAL DIODE. NOTE 1. CONNECT CAP TO EXT. SELF BIAS RES. JACKS MODEL 752A# CAP=K
6AM5 6AM6	6.3	4310-5720 4310-5726	26 11		X4 X10	\$5 \$5	400 300	
6AQ4 6AQ8 6B-B14 6BD7A 6BD7A	6.3 6.3 6.3 6.3	4510-0630			X10 X4 X4 X1 SH	S5 S5 S5 S5 S1	525 625 250 800 400	CAP=P. USE ADAPTER SA-8, 1050-168.
6BJ5 6BK8 6BL8 6BL8 6BM8	6.3 6.3 6.3 6.3	4520-6371	10 11 12 26 26		X10 X4 X4 X4 X4	\$5 \$5 \$5 \$5 \$5 \$5	500 300 625 675 625	PENTODE SECTION. TRIODE SECTION. PENTODE SECTION.
68M8 6BN5 6BR3	6.3 6.3 6.3	4510-9080 4520-7938 4500-9000	24	 76	X2 X4 SH	\$5 \$5 \$3	775 450 400	TRIODE SECTION. CONNECT CAP TO EXT. SELF BIAS RES. JACKS MODEL 752A# CAP=K
6BR5	6.3	4510-9020		100	SH	\$6		CONNECT A 1 MEGOHM RESISTOR FROM PLATE JACK TO OCTAL TEST SOCKET PIN 7. VARY BIAS TO VARY BEAM ANGLE.
6BR7 6BS7	6.3	4520-7839 4500-7839	20		X 2 X 2	S 5 S 5	375 375	CAP = G.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
6BT4	6.3	8100-2670	0	0	SH	S3	650	DUAL DIDDE. USE ADAPTER SA-5, 1050-129. NOTE 1.
6BW6 6BY7 6C12	6.3 6.3	4520-7839 4520-7819 5420-6137	18 17 15		X4 X4 X2	\$5 \$5 \$ 5	575 550 475	HEPTODE SECTION.
6C12 6C18 6C18 6CA4 6CD7	6.3 6.3 6.3 6.3 6.3	5490-8032 4570-3280 4590-1080 5400-7130 7240-5080	20 12 31 0	42	X4 X1G X10 SH SH	\$5 \$5 \$5 \$3 \$6	475 450 375 650	TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. DUAL DIODE. NOTE 1 CONNECT A 1 MEGOHM RESISTOR FROM PLATE JACK TO PIN 3 OF LARGE 7 PIN SOCKET. CONNECT A SECOND 1 MEGOHM RESISTOR FROM PLATE JACK TO PIN 6 OF LARGE 7 PIN SOCKET. EYE ONE CLOSES AT BIAS OF ABOUT 35. EYE TWO CLOSES AT BIAS OF ABOUT 68. BIAS = VARY.
6CF8 6CH6 6CJ5 6CK5 6CM4	6.3 6.3 6.3 6.3	4590-6138 4520-7839 1860-2570 1860-2570 4520-1030	11 0 21 10 14		X4 X10 X2 X10 X10	\$5 \$5 \$5 \$5 \$5	300 600 475 600 875	
6CM5 6CN6	6.3	7250-0480 7250-0481	32 0		X10 X10	S 5 S 5	450 700	CAP = P. CAP = P.
6CQ6 6CT7 6CT7	6.3 6.3 6.3	4310-5726 1860-2574 1800-3070	15 25 0	61	X4 X2 SH	S5 S5 S1	225 750 400	PENTODE SECTION. (SEE BELOW). DIODE SECT. USE ADAPTER SA-5, 1050-129.
6CU7 6CU7 6CV7 6CV7	6.3 6.3 6.3	1860-2574 1840-3076 1830-2070 1800-6570	19 27 9 0	 27	X2 X2 X1 SH	S5 S5 S5 S1	400 475 800 400	HEXODE SECTION. (SEE BELOW). TRIODE SECT. USE ADAPTER SA-5, 1050-129. TRIODE SECTION. (SEE BELOW). DUAL DIODE. USE ADAPTER SA-5, 1050-129.
6CW5	6.3	4520-7930	16		X 10	S 5	475	NOTE 1.
6CW7 6DA5	6.3 6.3	4562-9371 4510-9020	24	100	X10 SH	S5 S6	375	DUAL TRIODE. NOTE 1. CONNECT A 1 MEGOHM RESISTOR FROM PLATE JACK TO UCTAL TEST SOCKET PIN 7. VARY BIAS TO VARY BEAM ANGLE.
6DC8 6DC8 6DG7	6.3 6.3 6.3	4520-6139 4500-8730 4520-7839	14 0 0	60	X4 SH X4	\$5 \$1 \$5	450 400 500	PENTODE SECTION. DUAL DIODE. NOTE 1.
6DJ8 6DL4 6DL5 6DR8 6DR8	6.3 6.3 6.3 6.3	5472-6183 4590-8020 4310-5620 4520-1639 4500-8730	20 14 10 0	 44 43	X10 X20 X4 SH SH	S5 S5 S5 S1 S1	775 475 600 650 400	DUAL TRIODE. NOTE 1. PENTODE SECTION. DUAL DIODE. NOTE 1.
6DS8 6DS8 6DX8 6DX8 6EC4	6.3 6.3 6.3 6.3	4570-1632 4590-8030 4580-6970 4510-2030 4500-7010	23 7 10 12 0	80	X1 X2 X10 X4 SH	S1 S1 S5 S5 S3	600 300 625 625 350	HEPTODE SECTION. MAKE NO GAS TEST. TRIODE SECTION. MAKE NO GAS TEST. PENTODE SECTION. TRIODE SECTION. CONNECT CAP TO PIN 1 OF OCTAL SOCKET. USE ADAPTER SA-8, 1050-168.
6ED4 6ES6 6ET6 6F12	6.3 6.3 6.3	4500-8010 4370-6523 4310-6527 4310-5726	0 0 0 11	65 73	SH X1 SH X10	\$1 \$1 \$1 \$5	500 500 650 300	CAP = G. USE ADAPTER SA-8, 1050-168. MAKE NO GAS TEST.
6F13 6F14 6F16 6F17 6F19 6F21	6.3 6.3 6.3 6.3 6.3	1860-2574 1860-2574 1860-2570 8160-2570 4520-7819 4310-5726	11 10 21 21 17 15		X10 X10 X2 X2 X4 X4	\$5 \$5 \$5 \$5 \$5 \$5	475 425 475 475 550 225	USE ADAPTER SA-5, 1050-129. USE ADAPTER SA-5, 1050-129. USE ADAPTER SA-5, 1050-129. USE HICKOK ADAPTER SA-5, 1050-129
6F22 6F26 6F29 6F30 6F33	6.3 6.3 6.3 6.3	5490-6138 5420-7819 5420-7819 5420-7819 3410-5726	11 17 17 10 13		X4 X4 X4 X10 X2	\$5 \$5 \$5 \$5 \$5	300 550 650 500 650	

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
6FC7 6FG6 6FG6	6.3	4562-9381 4510-6030 4510-6030	22 45 0		X10 X20 X20	S5 S5 S5	550 	DUAL TRIODE. NOTE 1. SOLID BAR. (SEE BELOW). SPLIT BAR. JUMPER NOVAL SOCKET PINS 789. CONNECT A 470K OHM, 1/2 WATT, 10% RESISTOR FROM THIS JUMPER TO PIN 6.
6FY5 6G-A4	6.3 6.3	4320-5016 2710-3080	13 31		X10 X10	S 5 S 5	800 625	10% RESISTOR FROM THIS GOTTER TO THE OW
6G-83 6G-88 6G-88 6GJ7 6GJ7	6.3 6.3 6.3 6.3	2750-0480 4520-0780 7250-3480 5420-6710 5490-8030	35 73 25 10 29		X4 X4 X10 X10 X10	\$5 \$5 \$5 \$5 \$5 \$5	725 400 550 475 550	CAP=P CAP = P. USE ADAPTER SA-8, 1050-168. PENTUDE SECTION. TRIODE SECTION.
6GMB 6GS7 6GS7 6GV7 6GV7	6.3 6.3 6.3 6.3	4572-6183 4590-6780 4510-2030 4570-3280 4590-1080	19 10 33 12 31	0	SH X10 X10 X10 X10	\$1 \$5 \$5 \$5 \$5	875 500 300 450 375	DUAL TRIODE. MAKE NO GAS TEST. PENTODE SECTION. TRIODE SECTION. TRIODE SECTION.
6GVB 6GV8 6GW8 6GW8 6GX8	6.3 6.3 6.3	4590-6780 4520-1030 4580-6370 4510-9020 4580-7693	36 23 11 10 45		X10 X2 X10 X2 X20	\$5 \$5 \$5 \$5 \$5 \$5	375 950 500 325	PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. TRIODE SECTION. SOLID BAR.
6GX8 6GX8 6HA5 6H-B25 6HG8	6.3 6.3 6.3 6.3	4580-7693 4500-2030 4310-5076 4520-0798 4520-8930	78 0 17 45 11	20	X20 SH X10 X10 X10	\$4 \$1 \$5 \$5 \$5	400 475 350 525	SPLIT BAR. DIODE. CAP=P. USE ADAPTER SA-8, 1050-168. PENTODE SECTION.
6HG8 6HK8 6HU6 6HU6		4560-7030 4572-6183 4510-6030 4510-6030	33 15 34 0		X10 X20 X20 X20 X20	\$5 \$5 \$5 \$5 \$5	375 450 	TRIODE SECTION. DUAL TRIODE. NOTE 1. SOLID BAR. (SEE BELOW). SPLIT BAR. JUMPER NOVAL SOCKET PINS 7&9. CONNECT A 470 K DHM, 1/2 WATT, 10% RESISTOR FROM THIS JUMPER TO PIN 6.
61M8 61M8 61M8 6408	6.3 6.3 6.3 6.3 6.3	4520-3170 4560-8970 1CR0-732A 4520-6370 4590-1080 4520-6731	14 60 14 13		X4 X10 X4 X4 X4	\$5 \$5 \$5 \$5 \$5	770 770 325 775 550 730	PENTODE NO. 1. PENTODE NO. 2. MODEL 752* NOTE 7. PENTODE SECTION. TRIODE SECTION. HEPTODE SECT. HOLD DOWN S1 & PRESS S5.
6KH8 6KH8 6KH8	6.3 6.3 6.3 6.3	4590-8030 4510-0392 4526-3970	11 90 15 15		X4 X10 X4 X4 X1	\$4 \$5 \$5 \$5 \$5 \$5	400 475 775 775 100	TRIODE SECTION. CAP = P. USE ADAPTER SA-8, 1050-168. PENTODE NO. 1. PENTODE NO. 2. TRIODE SECTION.
6KN8 6KW6 6L12 6L13 6L34	6.3	4572-6183 4510-6370 5472-6183 4572-6183 4310-7050	18 40 14 14 0		X20 X10 X4 X4 X10	\$5 \$5 \$5 \$5 \$5 \$5	450 475 625 200 525	DUAL TRIODE. NOTE 1. USE ADAPTER SA-8, 1050-168. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
6LD3 6LD3 6LD12 6LD12 6LD12		1800-6570 5480-9070	9 0 15 0	27 35 78	X1 SH X4 SH SH	\$5 \$1 \$5 \$1 \$1	800 400 175 400 400	TRIODE SECT. USE ADAPTER SA-5, 1050-129. DUAL DIODE. USE ADAPTER SA-5, 1050-129. TRIODE SECTION. DIODE NO. 1. DUAL DIODE. NOTE 1.
6LD13 6LD13 6LF6 6LN8 6LN8	6.3 6.3 6.3 6.3	5400-8630 1C50-0342	9 0 77 12 26	27 	X1 SH X4 X4 X4	\$5 \$1 \$5 \$5 \$5	800 400 7 50 625 675	TRIODE SECTION. DUAL DIODE. NOTE 1. CAP=P. NOTE 7. PENTODE SECTION. TRIODE SECTION.
6LV6 6LX8 6LX8 6M5 6MG8	6.3 6.3 6.3 6.3	4520-6370 4590-1080 4520-7130	77 14 13 10 10		X4 X4 X4 X10 X10	\$5 \$5 \$5 \$5 \$5 \$5	625 775 550 600 325	CAP=P. MODEL 752# NOTE 7. PENTODE SECTION. TRIODE SECTION. PENTODE SECTION.
								SEE NEXT PAGE FOR CONTINUATION

TUBE TYPE	FIL. S	SELECTORS	RIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
S 6 19		4520-7813 5630-7824	16 14	900 AME AME	X 4 X 1 0	55 55	790 375	PENTODE SECTION. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4. NOTE 7.
19 :9	1 1	56A0-9010 5630-7824	30 15		X10 X10	\$5 \$5	300 375	TRIODE SECTION. PENTODE SECTION. USE ADAPTER SA-11. 1050-177. MODEL 752# USE SA-11 & CA-4. NGTE 7.
.9 .8 .8	10.0 4	56 A 0-9010 4520-6371 4590-1086	14 12 26	***	X 4 X 4 X 4	\$5 \$5 \$5	750 625 675	TRIDDE SECTION. PENTODE SECTION. TRIDDE SECTION.
84 K8 K8 K8 Q8	10.0 4 10.0 4 10.0 4	4360-1070 4580-9070 4500-6070 4500-2137 4572-6183	14 15 0 0 14	35 78	X4 X4 SH SH X4	\$5 \$5 \$1 \$1 \$5	625 175 400 400 625	TRIODE SECTION. DIODE NO. 1. DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1.
R8 R8 W6 .G8	10.0 4 10.0 4	4590-6780 4510-2030 4520-7839 4590-6780	12 10 18 10		X4 X10 X4 X4	\$5 \$5 \$5 \$5	475 525 575 725	PENTCIDE SECTION. TRIODE SECTION. PENTODE SECTION.
.G8	3 6	4510-2030	15		X10	S 5	350	TRIODE SECTION.
06 04 H8A H8A V8	7.5 4 10.0 4 10.0 4	4310-5726 4500-8010 4520-6370 4590-1080 4590-6780	15 0 11 13 36	65	X4 SH X4 X10 X10	\$5 \$1 \$5 \$5 \$5	225 500 625 525 380	CAP = G. USE ADAPTER SA-8, 1050-168. PENTUDE SECTION. TRIODE SECTION. PENTODE SECTION.
V8 6 W8 W8 9	10.0 4 10.0 4 10.0 4	4520-1030 4356-2170 4520-6370 4590-1080 5630-7412	23 17 14 13 15		X2 X10 X4 X4 X1	\$5 \$5 \$5 \$5 \$5	960 325 775 550 700	TRIODE SECTION. DUAL TRIODE. NOTE 1 PENTODE SECTION. TRIODE SECTION. HEPTODE SECTION. HOLD DOWN S1 & PRESS S5 USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4. NOTE 7.
9 C14 C14 CW5 D2	20.0 5 20.0 5 10.0 4	5680-A090 5420-6137 5490-8032 4520-7930 4300-7215	23 15 20 16 0	78	X4 X2 X4 X10 SH	\$5 \$5 \$5 \$5 \$5 \$1	650 475 475 475 475 400	TRIUDE SECTION. HEPTODE SECTION. TRIUDE SECTION. DUAL DIODE. NOTE 1.
DX8 DX8 FD12 FD12 GV8	10.0 4 20.0 5 20.0 5	4580-6970 4510-2030 5420-6139 5400-8730 4590-6780	10 12 14 0 36	60	X10 X4 X4 SH X10	\$5 \$5 \$5 \$1 \$5	625 625 450 400 375	PENTODE SECTION. TRIODE SECTION. PENTODE SECTION. DUAL DIODE. NOTE 1. PENTODE SECTION.
GV8 LD3 LD3 LD12 LD12	12.6 8 12.6 8 25.0 5	4520-1030 8130-2070 8100-6570 5480-9070 5400-6070	23 9 0 15 0	27 35	X2 X1 SH X4 SH	\$5 \$5 \$1 \$5 \$1	950 800 400 175 400	TRIODE SECTION. TRIODE SECT. USE ADAPTER SA-5, 1050-129. DUAL DIODE. NOTE 1. TRIODE SECTION. DIODE NO. 1.
LD12 LD13 LD13 LD14 P18	12.6 5 12.6 5 25.0 5	5400-2137 5420-1030 5400-8630 5472-6183 5420-7930	0 9 0 14 16	78 27 	SH X1 SH X4 X10	\$1 \$5 \$1 \$5 \$5	400 800 400 625 475	DUAL DIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1.
PL12 PL12 AF9	50.0 5	5430-6720 5410-9080 5680-A970	26 0 16		X4 X2 X10	\$5 \$5 \$5	625 775 650	PENTODE SECTION. TRIUDE SECTION. PENTODE NO. 1. USE ADAPTER SA-11,
AF9 BM8		5610-4320 4530-6720	12 26		X10 X4	S5 S5	450 625	PENTODE NO. 2. PENTODE SECTION.
BM8	10.0 4	+510-9080	0		X2	S 5	775	TRIODE SECTION. CAP=P. SHORT ON 1-2~3-4. HOLD DOWN S7
Y9		5680-A970	16		X10	\$5	650	AND PRESS 53. PENTODE NO. 1. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4. NOTE 7.
								SEE NEXT PAGE FOR CONTINUATION
LD13 LD13 LD14 P18 PL12 PL12 AF9 AF9 BM8	12.6 25.0 50.0 50.0 50.0 12.6 12.6 10.0 4 10.0 4	5400-8630 5472-6183 5420-7930 6430-6720 6410-9080 6680-A970 6510-4320 4530-6720 4510-9080 4500-0090	0 14 16 26 0 16 12 26	27	X4 X10 X4 X2 X10 X10 X4 X2 SH	\$1 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5	400 625 475 625 775 650 450 625 775 650	DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1. PENTODE SECTION. TRIODE SECTION. PENTODE NO. 1. USE ADAPTE 1050-177. MODEL 752* NOTE PENTODE NO. 2. PENTODE SECTION. TRIODE SECTION. CAP=P. SHORT ON 1-2~3-4. AND PRESS S3. PENTODE NO. 1. USE ADAPTE 1050-177. MODEL 752* USE NOTE 7.

							MIN. MUT.	NOTATIONS
TUBE TYPE	FIL.	SFLECTORS	BIAS	SHUNT	MULT	PKESS	COND	
6MG8 6M-HH3	6.3	4590-1080 3465-1270	10 16		X10 X10	S5 S5	525 550	TRIDDE SECTION. DUAL TRIDDE. NOTE 1.
6N3	6.3	4500-9030	0	50	SH	5.3	525	
6N~H)()	6.3	3140-2080	20	59	SH	\$5	1700	USE ADAPTER SA-3, 1050-127 OR CA-4, 1050 -135. NOTE 7.
6N-L7	6.3	3140-2080	47		X1	\$5	570	
6PL12	6.3	5430-6720	26		Х4	\$5	625	PENTINDE SECTION.
6PL12 6R3	6.3	5410-9080 4500-0090	0	50	X2 SH	\$5	775 650	TRIODE SECTION. CAP = P. SHORT ON 1-2-3-4. HOLD DOWN
					X10	C E	4()()	S7 AND PRESS S3.
6R-HH2 - 6R-HH8	6.3	4572-6183 4572-6183	15 18		X20	\$5 \$2	450	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
6R-K19	6.3	4500-9000	0	76	SH	\$3	400	CONNECT CAP TO EXT. SELF BIAS RES. JACKS
6R-P15	6.3	4510-7930	10		X10	S 5	500	MODEL 1924# CAT-N
6R-P22 652•A	6.3	4520-6317 4200-0000	10	85	X 4 SH	\$5 \$6	475 400	CAP = P.
6119	6.3	5630-7824	14		X10	\$5	375	PENTODE SECTION. USE ADAPTER SA-11. 1050-177. MODEL 752# USE SA-11 & CA-4. MOTE 7.
6U9	6.3	5640-9010	30		X10	\$5	300	TRINDE SECTION.
6V9	6.3	5630-7412	15		X1		700	HEPTODE SECTION. HOLD DOWN SI AND PRESS S5. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4, NOIE 7.
6V9	6.3	5680-A090	23		X 4	\$5	650	TRIDDE SECTION.
6X6 6X6	6.3	2753-4086 : 2750-4386	100	100	SH	\$6 \$6		FYES OPEN. EYES CLOSED.
6X9	6.3	5630-7824	15		X10	\$5	375	PENTODE SECTION. USE ADAPTER SA-11. 1050-177. MODEL 752# USE SA-11 & CA-4.
6X9	6.3	56A0~9010	14		X 4	S 5	750	NOTE 7. TRIODE SECTION.
6Y9	6.3	5680-A970	16		X10	\$5	650	PENTODE NO. 1. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4. NOTE 7.
6Y9 7AN7	6.3 7.5	5610-4320 4562-9371	12 24	Mills May May	X10 X10	\$5 \$5	450 375	PENTODE NO. 2. DUAL TRIODE. NOTE 1.
709	6.3	4310-5720	26		X 4	S 5	400	
7ES8 7F16	7.5 6.3	4572-6183 8160-2570	22		X10 X2	S 5 S 5	475 475	DUAL TRIODE. NOTE 1. USE ADAPTER SA-5, 1050-129.
7FC7	7.5	4562-9381	22		X10	S 5	550	DUAL TRIODE. NOTE 1.
7GS7	7.5	4590-6780	10	ette djen sjen	X10	\$5	500	PENTODE SECTION.
7GS7 7GV7	7.5 7.5	4510-2030 4570-3280	33 12	nath after copy	X10 X10	S5 S5	300 450	TRIODE SECTION. PENTODE SECTION.
7GV7 7HG8	7.5 7.5	4590-1080 4520-8930	31 11		X10 X10	S 5 S 5	375 525	TRIODE SECTION. PENTODE SECTION.
7HG8	7.5		33	- 1	X10	\$5		TRIODE SECTION.
8A8	10.0	4520-6371	12		X 4	S 5	625	PENTODE SECTION.
8A8 8AV11	10.0 7.5	4590-1086 1C97-A546	26 23		X 4 X 2	S5 S5	675 750	TRIODE SECTION. DUAL TRIODE. NOTE 1.
8AV11	7.5	1CB0-2030	23		Х2	\$5	750	TRIODE NO. 3. MODEL 752# NOTE 7.
888	7.5	4530-6720	26		X4	S5	625	PENTODE SECTION.
888 8CW5	7.5	4510-9080 4520-7930	0 16		X2 X10	S 5 S 5	775 475	TRIODE SECTION.
8D3 8D5	6.3	4310-5726	11		X10	S 5	300	
8D6	6.3	4520-7839 5420-7819	20 10		X10	\$5 \$5	375 400	
807	6.3	4500-7839	20		X2	\$5	375	CAP = G.
8D8 8DX8	6.3 7.5	5490-6138 4580-6970	11		X4 X10	S 5 S 5	300 630	PENTUDE SECTION.
8DX8	7.5	4510-2030	12		X 4	\$5	400	TRIUDE SECTION.
8GJ7	7.5	5420-6710	10		X10	\$5	475	PENTUDE SECTION.
8GJ7 8K11	7.5	5490-8030 1C90-A048	29		X10 X2	S5 S5	550 675	TRIODE SECTION. TRIODE NO. 1.
8K11	7.5	1C7B-5263	14		X4	\$5	200	DUAL TRIODE. NOTE 1.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
11Y9 12AC5	10.0	5610-4320 1860-2570	12 21		X10 X2	\$5 \$5	450 475	
12AJ7 12AJ7 12B-B14 12BR3 12H-B25	12.6 12.6 12.6 12.6 12.6	4520-6137 4590-8032 4510-0630 4500-9000 4520-0798	15 20 59 0 45	76	X2 X4 X4 SH X10	\$5 \$5 \$5 \$3 \$5	475 475 250 400 350	TRIODE SECTION. CAP = P. USE SA-8, 1050-168. CONNECT CAP TO EXT. SELF BIAS RES. JACKS
12R-K19	12.6	4500-9000	0	76	SH	53	400	CONNECT CAP TO EXT. SELF BIAS RES. JACKS MODEL 752# CAP=K
128X6 12DA6 12DW4A	12.6 12.6 12.6		10 12 0	55	X10 X4 SH	\$5 \$5 \$3 \$5	400 475 650	USE ADAPTER SA-4, 1050-144 OR CA-4, 1050-135. FOR MODEL 752A# SAME AS ABOVE NO ADAPTER REQUIRED. DUAL TRIODE. NOTE 1.
12FQ7 12GB3 12G-K17 12HU8 12HU8 12S7	12.6 12.6 12.6 12.6 12.6	4572-6183 2750-0480 7800-5030 4520-3170 4560-8970 8160-2574	23 35 0 14 14 25	50	X4 SH X4 X4 X2	\$5 \$3 \$5 \$5 \$5	725 650 770 770 375	CAP = P. PENTODE NO. 1. PENTODE NO. 2.
12S7 13CM5 13D1 13D2 13G85	12.6 12.6 25.0 6.3 12.6	8100-3070 7250-0480 7841-5263 7841-5263 4520-0780	0 32 23 23 73	61	SH X10 X4 X4 X4	S1 S5 S5 S5 S5	400 450 400 400 400	
14GW8 14GW8 14K7 14K7	12.6 12.6 12.6 12.6	4580-6370 4510-9020 1860-2574 1840-3076	11 10 19 27		X10 X2 X2 X2 X2	S5 S5 S5 S5	500 325 400 475	
14L7	12.6	1800-6570	0	27	SH	S1	400	DUAL DIODE. NOTE 1.
15CW5 15DQ8 15DQ8 16A5	17.0 17.0 17.0 17.0	4520-7930 4580-6970 4510-2030 4520-7930	30 10 12 23		X10 X10 X4 X10	\$5 \$5 \$5 \$5	475 630 630 350	USE ADAPTER SA-5, 1050-129. HOLD DOWN 'LIFE TEST' BUTTON. PENTODE SECTION. TRIODE SECTION.
16A8 16A8 16AQ3	17.0 17.0 17.0	4530-6720 4510-9080 4500-9000	26 0 0	56	X4 X2 SH	S5 S5 S3	625 775 800	PENTODE SECTION. TRIODE SECTION. CONNECT CAP TO EXT. SELF BIAS RES. JACKS MODEL 752* CAP=K. 17.0 1CBO-72AO 59 X4 S5 MODEL 752* NOTE 7.
16JV6 16JV6		1CBO-732A 752# NOTE	60		X10	\$5	325	NODEL YOUR NOTE YO
16LU8A 16LU8A 16Y9	17.0 17.0 17.0	1C60-4890 1CA0-20B0 5680-A970	40 21 16		X10 X4 X10	S 5 S 5 S 5	350 350 650	
16Y9 17A8	17.0 17.0	5610-4320 4520-6370	12 12		X10 X4	S 5 S 5	450 625	PENTODE NO. 2.
17A8 17AB9	17.0 17.0	4590-1080 5690-78A0	26 16		X4 X10	S 5 S 5	675 375	TETRODE NO. 1. USE ADAPTER SA-11, 1050-177. MODEL 752# USE SA-11 & CA-4.
17AB9 17B-B14 17BR3	17.0 17.0 17.0	5630~1240 4510~0630 4500~9000	16 59 0	76	X10 X4 SH	\$5 \$5 \$3	375 250 400	CAP = P. USE ADAPTER SA-8, 1050-168.
17C8 17C8 17DW4A	17.0 17.0 17.0	4520-6139 4500-7839 4500-2090	8 0 0	30 55	X4 SH SH	 Si S3	350 400 650	

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
17EW8 17H-825	17.0	4572-6183 4520-0798	14 45		X10 X10	S 5 S 5	375 350	DUAL TRIODE. NOTE 1. CAP=P. USE ADAPTER SA-8, 1050-168.
17KW6 17R-K19 17Z3	17.0 17.0 17.0	4510-6370 4500-9030 4500-0090	40 0 0	76 50	X10 SH SH	\$5 \$3 	475 400 650	USE ADAPTER SA-8, 1050-168. CONNECT CAP TO PIN 3 OF OCTAL SOCKET. CAP = P. SHORT ON 1-2-3-4. HOLD DOWN S7'AND PRESS S3.
18GB5 18GV8	20.0 17.0	4520-0780 4590-6780	73 36		X4 X10	\$5 \$5	400 380	CAP=P. USE HICKOK ADAPTER SA-8, 1050-168 PENTODE SECTION.
18GV8 18J6 19AJ8 19AJ8 19BR5	17.0 17.0 20.0 20.0 20.0	4520-1030 4356-2170 4520-6137 4590-8032 4510-9020	23 17 15 20	100	X2 X10 X2 X4 SH	\$5 \$5 \$5 \$5 \$6	960 325 475 475	TRIODE SECTION. DUAL TRIODE. NOTE 1. HEPTODE SECTION. TRIODE SECTION. CONNECT A 1 MEGOHM RESISTOR FROM PLATE JACK TO OCTAL TEST SOCKET PIN NO. 7. VARY BIAS TO VARY BEAM ANGLE.
198X6 198Y7 19D8 19D8 19EW7	20.0 20.0 20.0 20.0 20.0	4520-7819 4520-7819 4520-6137 4590-8032 4570-6080	10 17 15 20 34		X10 X4 X2 X4 X2	S5 S5 S5 S5 S5	400 550 475 475 650	HEPTODE SECTION. TRIODE SECTION. TRIODE NO. 1.
19EW7 19FL8 19FL8 19G3 19KF6	20.0 20.0 20.0 4.3 20.0	4520-1090 4520-6139 4500-8730 7200-0000 4570-9632	56 14 0 0 34	60 15	X10 X4 SH SH X4	\$5 \$5 \$1 \$3 \$5	475 450 400 800 200	TRIODE NO. 2. PENTODE SECTION. DUAL DIODE. NOTE 1. CAP = P. USE ADAPTER SA-8, 1050-168.
20A3 20AQ3	6.3 20.0	4310~6025 4500~9000		93 56	SH SH	\$6 \$3	650 800	STRIKES AT ABOUT 26. NOTE 6. CONNECT CAP TO EXT. SELF BIAS RES. JACKS MODEL 752A# CAP=K
20LF6 21KQ6 23JS6A	20.0 20.0 25.0	1C50-0324 4580-0392 1C50-0324	77 30 68		X4 X10 X4	S5 S4 S5	750 750 600	CAP=P. MODEL 752# NOTE 7. CAP = P. USE ADAPTER SA-8, 1050-168. CAP = P. NOTE 7.
258-814 258R3	25.0 25.0	4510-0630 4500-9000	59 0	76	X4 SH	S5 S3	250 400	CAP=P. USE ADAPTER SA-8, 1050-168. CONNECT CAP TO EXT. SELF BIAS RES JACKS MODEL 752A#CAP=K
25E5 25H-B25 25HX5	25.0 25.0 25.0	7250-0480 4520-0798 4570-9630	32 45 55		X10 X10 X10	S5 S5 S5	450 350 350	CAP = P. CAP=P. USE ADAPTER SA-8, 1050-168. USE ADAPTER SA-8, 1050-168.
25R-K19 26AQ8 27GB5 27KG6 27LF6	25.0 25.0 25.0 25.0 25.0	4500-9030 4572-6183 4520-0780 4510-0392 1C50-0324	0 14 73 90 77	76 	SH X4 X4 X10 X4	S3 S5 S5 S5 S5	400 625 400 475 750	CONNECT CAP TO PIN 3 OF OCTAL SOCKET. DUAL TRIODE. NOTE 1. CAP = P. USE ADAPTER SA-8, 1050-168. CAP = P. USE ADAPTER SA-8, 1050-168. CAP=P. MODEL 752# NOTE 7.
28AK8 28AK8 28AK8 28EC4	25.0	4500-2137 4500-7010	0	80	X4 SH SH SH	\$5 \$1 \$1 \$3	350	DUAL DIODE. NOTE 1. CONNECT CAP TO PIN 1 OF OCTAL SOCKET. USE ADAPTER SA-8, 1050-168.
30A5	25.0 35.0	4580-0392 4950-7610	30 16		X10 X10	S 4 S 5	7 5 0 475	The state of the s
	25.0							33 OHM, 2 WATT RESISTOR BETWEEN PINS 3 AND 9 ON THE 9-PIN MIN. SOCKET COUNTING COUNTER CLOCKWISE.
30AE3 30C1 30C1	25.0 10.0 10.0	5420-6371 5490-1086	12 26	56 	X4 ′	\$3 \$5 \$6	400 625	CONNECT CAP TO EXT. SELF BIAS RES. JACKS MODEL 752A# CAP=K PENTODE SECTION TRIODE SECTION
30L1	7.5	4562-9371	24		X4 X10	\$5 \$5	675 375	TRIODE SECTION DUAL TRIODE. NOTE 1.
31AV3 31AV3 32A8 32A8 34R3	35.0 35.0 35.0 35.0	1800-2070 4500-9030 4530-6720 4510-9080 4500-0090	0 26 0	48	SH SH X4 X2 SH	S3 S5 S5 	500 500 625 775 650	ADJ. LINE ADJ. TO 625. USE ADAPTER SA-5, 1050-129. SET 'LINE ADJUST' AT 625 ON 1500 SCALE. PENTODE SECTION TRIODE SECTION. CAP = P. SHORT ON 1-2-3-4. HOLD DOWN S7 AND PRESS S3.

TUBE TYPE	FIL.	SELECTORS	HIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
1619 1620 1621 1622 1623	2.5 6.3 6.3 6.3	7250-3408 7200-3485 7250-3480 7250-3480 4130-0000	12 21 23 17 0		X4 X2 X2 X10 X2	\$5 \$5 \$5 \$5 \$5 \$5	525 375 625 300 675	NOTE 2. CAP = G. CAP = P.
1624 1625 1626 1629 1629	00000	5130-0200 /140-0360 /250-3080 /250-4080 /250-4380	0 28 46 0 0	100	X4 X4 X2 SH SH	\$5 \$5 \$5 \$5 \$5 \$5	550 600 650	CAP = P. CAP = P. EYE OPEN. EYE CLOSED.
1631 1632 1633 1634 1635	12.6 12.6 25.0 12.6 6.3	7250-3481 7250-3480 7841-5263 7843-5261 7245-3680	17 25 23 12 0		X10 X10 X4 X4 X4 X2	\$5 \$5 \$5 \$5 \$5	300 375 400 200 250	HOLD DOWN S1 AND PRESS S5. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.
1641 1641 1642 1644 1644	5.0 5.0 6.3 12.6 12.6	4100-0000 1400-0000 7104-3526 7610-8523 7630-4521	0 0 35 0	28 28 	SH SH X2 X2 X2	\$3 \$3 \$5 \$5 \$5	650 650 425 525 525	LEFT CAP = P. RIGHT CAP = P. DUAL TRIODE. CAP = G. NOTE 1. PENTODE NO. 1. PENTUDE NO. 2.
1650 1654 1655 1658 1659	6.3 1.4 6.3 2.0 2.5	6140-3070 1700-0000 7843-5260 4130-2000 6100-2050	24 0 12 43 11	67	X2 SH X4 X2 X4	\$5 \$6 \$5 \$5 \$5	600 650 200 275 175	CAP = P. DUAL TRIODE, NOTE 1. TRIODE SECTION. CAP = G.
1659 1851 1852 1853 5516	2.5 6.3 6.3 6.3	6100-4350 7200-3485 7240-8653 7240-8653 7250-0310	11 13 13 0 0	32	X10 X10 X10 X4 X4	\$1 \$5 \$5 \$5 \$5 \$5	400 375 375 625 625	DUAL DIODE. NOTE 1. CAP = G. CAP = P. SHORT ON 1-2.
5517 5556 5591 5603 5608A	OFF 4.3 6.3 6.3 2.5	0000-4070 4130-2000 4310-5620 2740-8623 7153-6240	0 26 10 42 17	40	SH X2 X4 X4 X2	\$2 \$5 \$5 \$5 \$5	650 300 675 625 475	CAP = P. . DUAL TRIODE. NOTE 1.
5610 5618 5633 5634 5635	6.3 6.3 6.3 6.3	4360-1020 1760-2340 4630-0512 4630-0512 3612-7584	27 0 12 12 12		X4 X4 X4 X10 X4	\$5 \$5 \$5 \$5 \$5	625 475 375 225 600	NOTE 2. TOP LEAD = P. TOP LEAD = P. DUAL TRIODE. NOTE 1.
5637 5638 5639 5640 5641	6.3 6.3 6.3 6.3	4630-1520	10 22 15 44 0		X4 X4 X10 X10 SH	\$4 \$5 \$5 \$5 \$5 \$3	425 300 350 300 650	
5645 5646 5647 5656 5656	6.3 6.3 6.3 6.3	5340-1020 5340-1020 2300-1040 4523-8197 4532-7198	25 9 0 11 11	80	X4 X4 SH X10 X10	\$5 \$4 \$1 \$5 \$5	425 225 400 375 375	TETRODE NU. 1 TETRODE NO. 2.
5659 5660 5660 5661 5662	12.6 12.6 12.6 12.6	7250-3480 7200-3680 7200-5483 7240-8653 4310-7050	18 22 22 10	32 94	X4 X2 SH X4 SH	\$5 \$5 \$1 \$5 \$6	475 300 400 300 650	PENTODE SECTION. CAP = G. DUAL DIODE. NOTE 1. STRIKES AT ABOUT 20. NOTE 6.
5663 5679 5690 5690 5691	6.3 6.3 6.3 6.3	4310-7520 8100-6372 7600-5083 2100-3045 7841-5263	0 0 0 0 13	48 72 50 50	SH SH SH SH X4	\$3 \$1 \$3 \$3 \$5	650 400 650 650 250	STRIKES AT ABOUT 75. NOTE 6. DUAL DIODE. NOTE 1. UNIT NO. 1. UNIT NO. 2. DUAL TRIODE. NOTE 1.
5692 5693 5694	6.3 6.3 6.3	7841-5263 7240-8653 7245-3618	23 18 0		X 4 X 4 X 2	\$5 \$5 \$5	350 250 625	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1.

TUBE TYPE	FIL.	SELECTURS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIUNS
879	2.5	4100-0000	0	88	SH	\$6	650	CAP 93P.
SD917A SN944 SN946B SN947D SN949C	6.3 6.3 6.3 6.3	3420-1050 4630-0512 2300-1040 3610-5780 3670-1052	10 12 0 44	80 50	X4 X4 SH X10 SH	\$4 \$5 \$1 \$5 \$3	425 375 400 300 650	TOP LEAD = P. STRIKES AT ABOUT 78. NOTE 6.
950 951 SN953D 954 SN954	2.0 2.0 6.3 6.3	5130-2400 4100-2300 3610-5720 6180-0374 4200-1030	45 15 15 23 0		X2 X1 X10 X2 SH	\$5 \$5 \$5 \$5 \$5 \$3	300 400 350 350 650	CAP = G. CAP = P.
SN954B 955 956 SN956B	6.3 6.3 6.3	3600-2050 6140-3070 6180-0374 1200-0000	0 24 13 0	0	SH X2 X4 X1	\$3 \$5 \$5 \$5 \$3	650 600 225 400	CAP = P. TOP LEAD = P. CONNECT FIL. LEADS . TO PINS 1 AND 2.
957	1.4	6140-3000	33		X2	S 5	200	
SN957A 958 959 SN972D SN973B	6.3 1.4 1.4 6.3 6.3	5340-1020 6140-3000 6180-0300 3610-5740 3610-5740	25 39 20 13 16		X4 X2 X2 X4 X4	\$5 \$5 \$5 \$5	425 375 175 475 475	CAP = P. HULD DOWN SI AND PRESS 55.
SN976C SD993C SD995B FM1000 FM1000	6.3 6.3 6.3 6.3	3610-5780 3610-8050 3610-5740 8120-4536 8160-4532	44 19 13 0		X10 X10 X4 X2 X2	\$5 \$5 \$5 \$5 \$5 \$5	300 300 475 225 275	GRID NO. 1. GRID NO. 2.
1005 1005 SN1006 CK1027 CK1042	6.3 6.3 6.3 OFF	6800-3050 6800-5030 5340-1200 0000-4070 0000-1050	0 9 0	93 93 91 0	SH SH X4 SH SH	\$6 \$6 \$4 \$6 \$2	650 650 225 650 650	PLATE NO. 1. PLATE NO. 2. CAP = P.
E1148 1201 1203 1204 1216	6.3 6.3 6.3 6.3	7200-0080 8210-3040 8100-4070 7250-3140 4356-2170	12 18 0 10 24	70	X4 X4 5H X4	\$5 \$5 \$1 \$5 \$5	350 475 400 250 525	UPPER CAP = P. LOWER CAP = G. DUAL TRIDDE. NOTE 1.
1229 1230 1231 1232 1237	2.0 2.0 6.3 6.3 2.5	4100-2300 4130-2000 8160-2374 8160-2374 7200-3600	20 43 10 11	 70	X2 X2 X10 X10 SH	55 S5 S5 S5	200 275 250 250 650	CAP = G. HOLD DOWN S1 AND PRESS S5. DUAL DIODE. NOTE 1.
1247 HY1269 1273 1274 1280	0.6	5130-0240	0 0 8 0	20	SH X10 X4 SH X4	S1 S5 S5 S3 S5		
1284 1285 1291 1291 1293	12.6 25.0 2.5 2.5 1.4	8160-2374 7250-3480 1860-7000 8130-2000 8160-2000	23 0 27 27 28		X2 X10 X2 X2 X2	\$5 \$4 \$5 \$5 \$5	625 500 475 475 400	
1294 1299 1602 1603 1609	1.4 2.5 7.5 6.3 1.1	8100-4070 8160-2300 4130-2000 6100-2354 5130-2400	0 16 44 21 0	4 H	SH X4 X2 X2 X2 X2	\$1 \$5 \$5 	400 375 375 375 225	CAP = G.
1612 1612 1613 1614 1616	6.3 6.3 6.3 4.3	7200-3485 7250-3481 7250-3480 7250-3481 4100-0000	10 14 25 17	311	X4 x4 x7 x1 5H	55 55 5 57	175 175 625 3() 650	CAP GRID. CAP = G. PIN GRID. CAP = P.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. CUND	NOTATIONS
5731 5732	6.3	6140-3070 7200-3485	20 13		X2 X2	S5 S5	675 450	CAP = G.
5742 5785 5812 5823	4.3 1.1 6.3 OFF	4130-2000 6700-1000 4310-5602 0000-1030	10 0 28 0	0 91	X2 SH X4 SH	\$5 \$1 \$5 \$6	250 400 650 650	NOTE 2. PLACE A 1 MEGOHM 1/2 WATT RESISTOR ACROSS PINS 1 AND 4 IN LOCTAL SOCKET.
5824	25.0	7250-3480	20		X10	S4	300	ACRES FINS I AND 4 IN EDUTAL SUCKET
5825 5838 5839 5842 5851	1.4 12.6 25.0 6.3 2.5	4100-0000 7200-5381 7200-5380 3950-1060 7180-3600	0 0 0 19 30	0 20 35 	SH SH SH X20 X2	\$6 \$3 \$3 \$5 \$5	250 650 400 375 500	CAP = P. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1.
5854 5875 5879 5886 5894	1.1 1.1 6.3 1.1 12.6	3540-1200 3540-1200 4510-8739 3470-1200 1762-0340	20 13 20 57 35		X1 X4 X2 X1 X4	\$5 \$5 \$5 \$5 \$5	350 300 300 100 625	NOTE 2. RIGHT CAP = P. USE ADAPT 1050-107
5894 5961	12.6	1726-0340 7250-3468	35		X 4	S 5	625	LEFT CAP = P.
5901 5910 5961	6.3	3610-5740 1760-2300 7250-4068	16 19 30		X4 X2 X4	\$5 \$5 \$5	475 275 625	USE FOR SHORT CHECK ONLY DO NOT USE FOR SHORTS
5967 5992 5998 6000 6004	1.1 6.3 7.5 25.0 5.0	4263-8100 7250-3480 7841-5263 7210-5830 8200-0000	18 13 27 16	 25	X2 X4 X20 X10 SH	\$4 \5 \54 \55 \\$3	300 550 425 375 450	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. NEAR CAP = P.
6004 6007 6007A 6008 6026	5.0 1.1 1.1 0.6 6.3	8200-0000 3540-1200 3540-1200 3540-2100 4570-8030	0 25 25 28 25	25	SH X1 X1 X1 X1	S3 S5 S5 S5 S5	450 250 250 60 650	FAR CAP = P.
6029 6046 6064 6087 6088	1.1 25.0 6.3 5.0	2430-1000 7250-3481 3410-5726 8200-6400 3540-1200	34 25 11 0	40	X2 X10 X10 SH X1	S5 S5 S3 S5	625 375 300 400 400	HOLD DOWN S1, PRESS S5 DUAL DIODE. NOTE 1.
6094 6099 6100 6101 6106	6.3 6.3 6.3 5.0	3510-4280 4356-2170 4360-1070 4356-2170 8200-6400	18 17 25 14	35	X4 X10 X2 X10 SH	\$5 \$5 \$5 \$5 \$5 \$3	575 325 675 375 400	DUAL TRIODE. NOTE 1. DUAL TRIODE. NOTE 1. DUAL DIODE. NOTE 1.
6113 6145 6147 6169 6184	6.3 6.3 2.5 6.3 6.3	7841-5263 8160-2374 7180-3600 3610-2040 3600-2745	13 0 30 13	 78	X4 X10 X2 X4 SH	\$5 \$5 \$5 \$5 \$5	250 400 500 625 400	DUAL TRIODE. NOTE 1. DUAL DIODE. NOTE 1.
6188 R6279 6355 6355 6877	6.3 6.3 6.3 6.3	7841-5263 7200-0080 5310-4270 5340-1270 5310-4080	13 0 0 0 0	30 100 100	X4 SH SH SH X4	\$5 \$3 \$5 \$5 \$5	250 650 625	DUAL TRIODE. NOTE 1. TOP WASHER = P. EYE 1 OPEN. EYE 2 CLOSED. EYE 2 OPEN. EYE 1 CLOSED.
6888 6954 7193 8005 8013A	6.3 6.3 6.3 10.0 3.0	7240-8653 4310-5627 7200-0080 4130-0000 4100-0000	37 10 23 0	82	X2 X2 X4 X4 X4	\$5 \$5 \$5 \$5 \$5 \$6	650 625 475 400 650	FAR CAP = G. NEAR CAP = P. CAP = P. CAP = P.
8016 9001 9002 9003 9004	1.1 6.3 6.3 6.3 6.3	7200-0000 4310-5670 4360-1070 4310-5620 6100-3040	0 20 25 12 0	80 78	SH X2 X2 X2 SH	\$6 \$5 \$5 \$5 \$5	400 350 600 475 400	CAP = P.

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	TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
	9005 9006 AX9903 AX9903 38142	4.3 6.3 12.6 12.6 7.5	6100-4030 4300-1070 1762-0340 1726-0340 4130-2000	0 0 35 35 37	65 65 	SH SH X4 X4 X2	\$1 \$1 \$5 \$5 \$5	400 400 625 625 625	RIGHT CAP = P. USE ADAPT 1050-107 LEFT CAP = P.
	XXB XXB XXD XXFM XXFM	2.5 2.5 12.6 6.3 6.3	1850-6000 8140-3000 8154-6372 8130-2040 8100-5647	10 10 27 11 0	77	X2 X2 X4 X4 SH	\$4 \$4 \$5 \$5 \$5	350 350 325 150 400	TRIODE NO. 1. TRIODE NO. 2. DUAL TRIODE. NOTE 1. TRIODE SECTION. DUAL DIODE. NOTE 1.
	XXL	6.3	8160-2070	23		X4	\$5	400	
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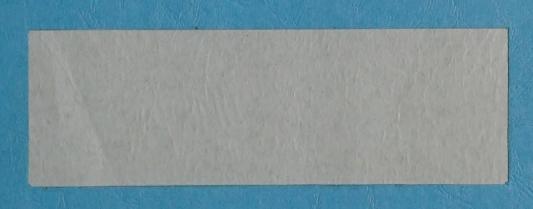
TUBE TYPE	FIL.	SFLECTORS	HIAS	SHUNT	MULT	PRESS	MIN. MUT. COND	NOTATIONS
VT67 HY69 70A7 70A7	2.0 6.3 75.0 75.0	4130-2000 5130-0240 7250-3480 7200-1000	43 0 80 0	 58	X2 X4 X4 SH	S 5 S 5 S 5	275 475 475 650	CAP = P. PENTODE SECTION. RECT. SECTION. REVERSE METER. HOLD DOWN S7 AND PRESS S3.
70L7 70L7 71A 75 75	75.0 75.0 5.0 6.3 6.3	7250-3460 7200-8013 4130-2000 6100-2050 6100-4352	10 0 69 11 11	55 32	X10 SH X2 X4 SH	\$3 \$5 \$5 \$5 \$1	475 650 525 175 400	PENTODE SECTION. HOLD DOWN S1 & PRESS S5 RECT. SECTION. TRIODE SECTION. CAP = G. DUAL DIODE. NOTE 1.
76 77 78 79 81	6.3 6.3 6.3 7.5	5130-2040 6100-2354 6100-2354 6103-5240 4100-2000	32 18 13 13		X2 X2 X2 X2 X2 SH	\$5 \$5 \$5 \$5 \$5	450 375 450 300 400	CAP = G. CAP = G. DUAL TRIODE. CAP = G. NOTE 1.
82 83V 84 85 85	2.5 5.0 6.3 6.3 6.3	4100-3200 4100-3200 5100-3240 6100-2050 6100-4352	0 0 0 42 42	55 60 25 30	SH SH SH X2 SH	\$3 \$3 \$3 \$5 \$1	650 650 650 300 400	DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. DUAL DIODE. NOTE 1. TRIODE SECTION. CAP = G. DUAL DIODE. NOTE 1.
85AS 85AS 89/89Y 99 112A	6.3 6.3 6.3 3.0 5.0	6100-2050 6100-4352 6100-2354 4130-2000 4130-2000	26 26 29 20 48	30	X2 SH X2 X1 X2	S5 S1 S5 S5 S5	375 400 475 250 525	TRIODE SECTION. CAP = G. DUAL DIODE. NOTE 1. CAP = G.
CK113 CK113 HY114 117L7/M7 117L7/M7	50.0 50.0 1.4 117.0 117.0	7250-3486 7200-6013 7200-0000 7240-3580 7200-6010	32 0 22 ·28 0	40	X2 SH X2 X4 SH	\$5 \$3 \$5 \$5 \$5	550 650 350 625 650	PENTODE SECTION. RECT. SECTION. RIGHT CAP = P. LEFT CAP = G. PENTODE SECTION. RECT. SECTION.
117N7 117N7 117N7 117N7 117P7	0FF 117.0 117.0 0FF 117.0	7200-8000 7200-8000 7240-3560 7200-8000 7200-8000	30	55 55	X10 SH	S5	300 650	USE THIS SETTING FOR SHORT CHECK ONLY. RECT. SECTION. SHORT ON 3-4. HOLD DOWN S7 AND PRESS S3. PENTODE SECTION. USE THIS SETTING FOR SHORT CHECK ONLY. RECT. SECTION. SHORT ON 3-4. HOLD DOWN
117P7 117Z3 117Z4 117Z6 X-155	117.0 117.0 117.0 117.0	7240-3560 4300-5060 7200-5080 7200-5384 4572-6183	28 0 0 0	50 50 50	X4 SH SH SH X10	\$5 \$3 \$3 \$3 \$3	625 650 650 650 425	S7 AND PRESS S3. PENTODE SECTION. DUAL DIODE. NOTE 1. DUAL TRIODE. NOTE 1.
183 244A 257A 259A 264C	5.0 2.0 3.0	4130-2000 5130-2040 4100-2000 5100-2340 4130-2000	79 42 16 19 20		X2 X2 X1 X2 X1	S 5 S 5 S 5 S 5 S 5	475 150	CAP = G.
271A 274A 274A 283A 285A		5130-2040 1400-2000 1400-3000 5100-2340 5100-2340	32 0 0 28 31	50 40	X4 SH SH X2 X2	S 5 S 3 S 3 S 5 S 5	400 400 400 300 300	PLATE NO. 1 PLATE NO. 2 CAP = G. CAP = G.
286A 310A 311A 328A 349A		1600-2354 6100-2354 5100-2340 1600-2354 2750-3480	30 20 31 18 10		X2 X2 X2 X2 X2 X4	\$5 \$5 \$5 \$5 \$5	200 475 700 575 575	CAP=G CAP = G. CAP = G. CAP=G
482A 482B 483 485 GL502A	5.0 5.0 5.0 3.0 6.3	4130-2000 4130-2000 4130-2000 5130-2040 7250-3086	79 58 79 37	 93	X2 X2 X2 X2 X2 SH	\$5 \$5 \$5 \$5 \$5	475 475 475 400 650	STRIKES AT ABOUT 28. NOTE 6.
CK50ZAX	1.1	3540-1200	17		X1	\$5	350	

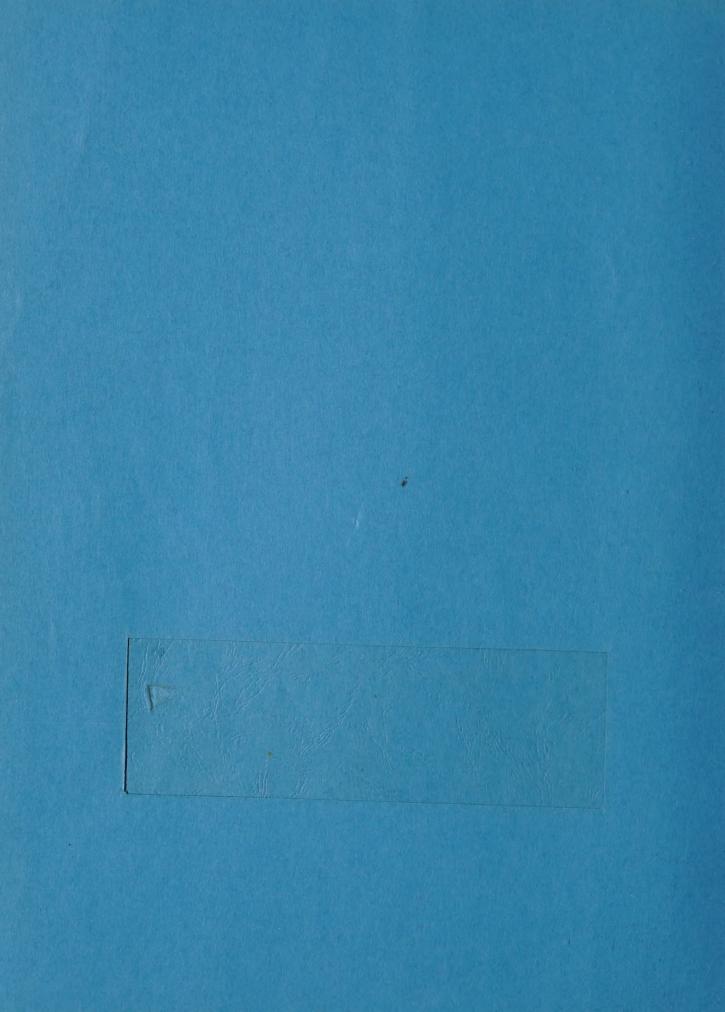
TUBE TYPE	FIL.	SELECTORS	HIAS	SHUNT	MULT	PRESS	MIN. MUT. CUND	NOTATIONS
CK503AX CK505AX CK506AX CK510AX	1.1 0.6 1.1 0.6	3540-1200 3540-1200 3540-1200 4710-2306	20 17 32 0		X1 X1 X1 SH	\$5 \$5 \$5 \$5	350 100 300 50	SECTION NO. 1.
CK510AX CK512AX CK518AX CK522AX CK523AX	0.6 0.6 1.1 1.1	4760-5301 3540-1200 3540-1200 3540-1200 3540-1200	0 15 18 20 28	0	SH X1 X1 X1 X1	\$6 \$5 \$5 \$5 \$5 \$5	50 100 350 275 225	SECTION NO. 2.
CK524AX CK525AX CK526AX CK527AX CK527AX	1 • 1 1 • 1 1 • 1 1 • 1	3540-1200 3540-1200 3540-1200 3540-1200 3540-1200	45 29 34 15 17		X1 X1 X1 X1 X1	\$5 \$5 \$5 \$5 \$5	175 200 250 150 275	
CK529AX CK533AX CK535AX CK536AX CK541DX	1 • 1 1 • 1 1 • 1 1 • 1	3540-1200 3540-1200 3540-1200 3540-1200 3540-1200	39 23 39 23 16		X1 X1 X1 X1 X1	\$5 \$5 \$5 \$5 \$5	225 250 225 250 250	
CK542DX CK543DX CK544DX CK546DX GL546	1.1 0.6 1.1 1.4 6.3	3540-1200 3540-2100 3540-1200 3540-1200 4310-7520	35 0 15 20	0 35	X1 SH X1 X1 SH	\$5 \\$1 \\$5 \\$5 \\$5 \\$5	200 200 200 275 650	MAKE NO GAS TEST. STRIKES AT ABOUT 73. NOTE 6.
CK547UX CK548UX CK556AX CK568AX CK569AX	1 • 1 1 • 1 1 • 1 1 • 1 1 • 1	3540-1200 3540-1200 4230-1000 4230-1000 3540-1200	15 29 26 38 8		X1 X1 X2 X2 X1	\$5 \$5 \$5 \$5 \$5	250 175 500 200 525	
CK571AX CK573AX CK574AX CK578AX CK605CX	1 • 1 1 • 1 0 • 6 1 • 1 6 • 3	3470-1200 2430-1000 3540-1200 3540-1200 3470-1265	57 34 15 35 10		X1 X2 X1 X2 X4	\$5 \$5 \$5 \$5 \$5	100 625 100 800 675	
CK606BX CK608CX CK619CX 629 717A	6.3 6.3 3.0 6.3	2300-1040 3450-1060 2340-1050 5130-2040 7240-8631	0 22 7 8	80 93 	SH X10 X10 SH X4	S1 S5 S5 S6 S6	400 300 250 650 475	STRIKES AT ABOUT 20. NOTE 6.
801A 802 807 809 811A	7.5 6.3 6.3 6.3	4130-2000 7140-0365 5130-0240 4130-0000 4130-0000	0 0 28 0		X2 X2 X4 X2 X2	\$5 \$5 \$5 \$5 \$5	475 625 600 525 425	CAP = P. CAP = P. CAP = P. CAP = P.
812 814 815 815 816	6.3 10.0 6.3 6.3 3.0	4130-0000 5130-0240 8570-0432 1520-0437 4100-0000	0 0 20 20	 58	X2 X2 X4 X4 SH	\$5 \$5 \$5 \$5 \$5 \$3	625 750 625 625 650	CAP = P. CAP = P. FUSE LAMP WILL GLOW BRIGHTLY. PENTODE NO. 1. LEFT CAP = P. PENTODE NO. 2. RIGHT CAP = P. CAP = P.
SD828A SD828E 829B 829B 832A	6.3 6.3 6.3 6.3	4630-1520 4630-0512 5762-0340 5126-0340 5762-0340	22 12 15 15 28		X4 X10 X10 X10 X4	\$5 \$5 \$5 \$5 \$5	300 325 475 475 550	TOP LEAD = P. RIGHT CAP = P. USE ADAPT 1050-107 LEFT CAP = P. RIGHT CAP = P. USE ADAPT 1050-107
832A 834 836 837 841	6.3 7.5 4.3 12.6 7.5	4100-0000 1800-0000	28 0 0 0 15	55 	X4 X2 SH X4 X2	\$5 \$5 \$3 \$5 \$5	550 525 650 475 325	LEFT CAP = P. NEAR BAP = G. FAR CAP = P. CAP = P. CAP = P.
842 843 864 865	7.5 2.5 1.1 7.5	4130-2000	52 ! 12 45 35		X2 X2 X2 X2	\$5 \$5 \$5 \$5	350 500 200 200	CAP = P.





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INSTRUCTION MANUAL for

MODEL 752A DYNAMIC MUTUAL CONDUCTANCE TUBE TESTER